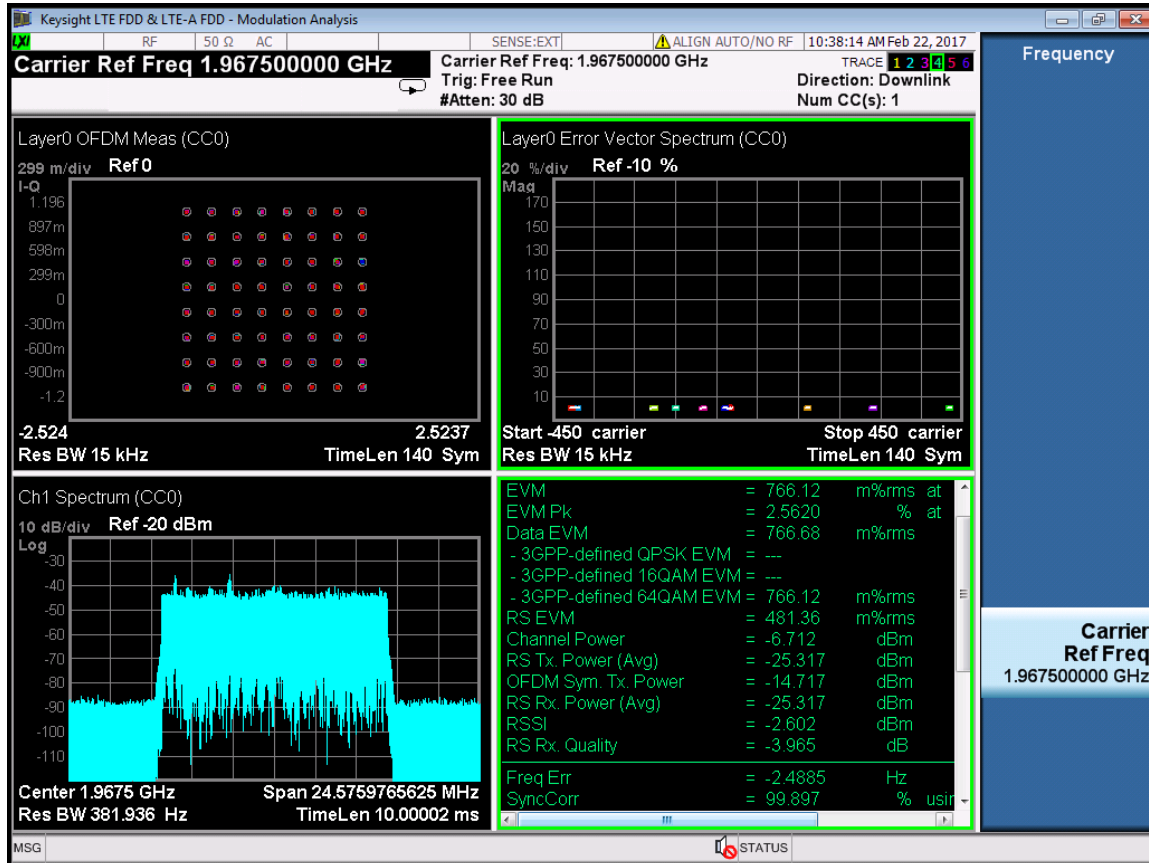
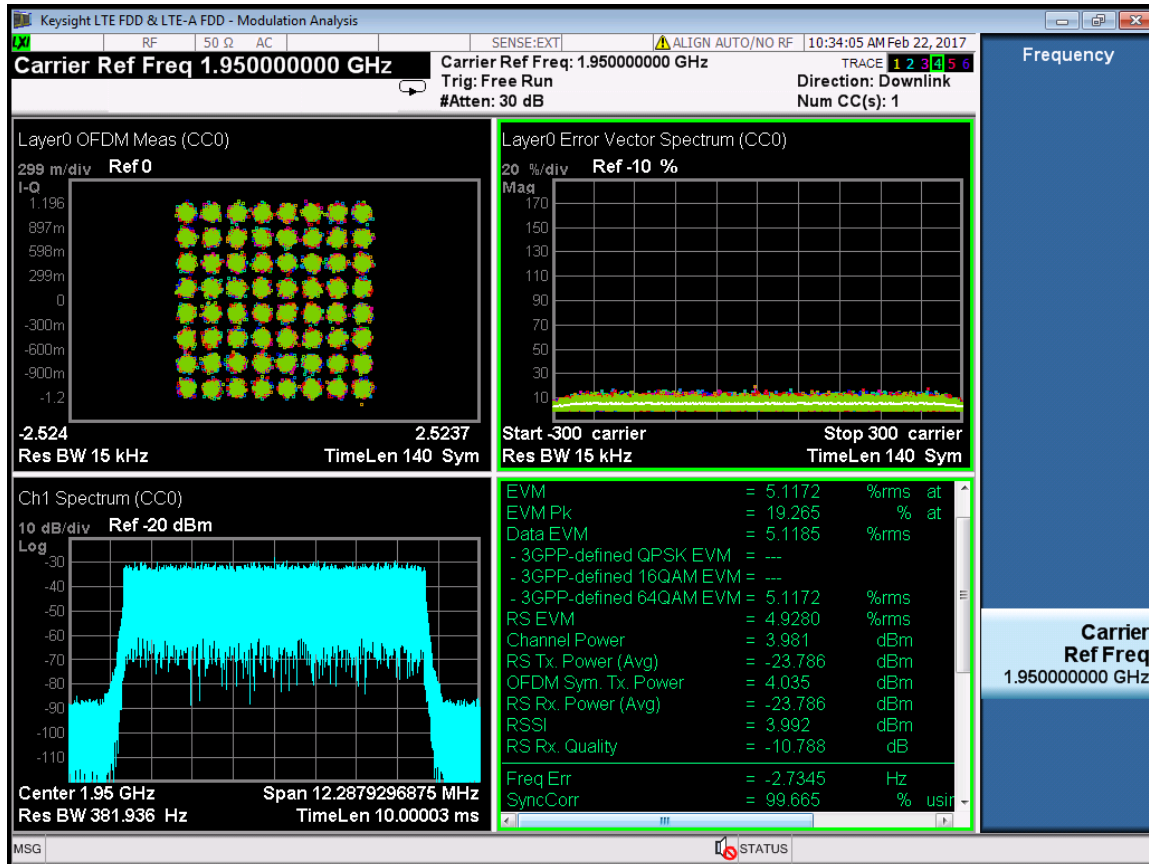


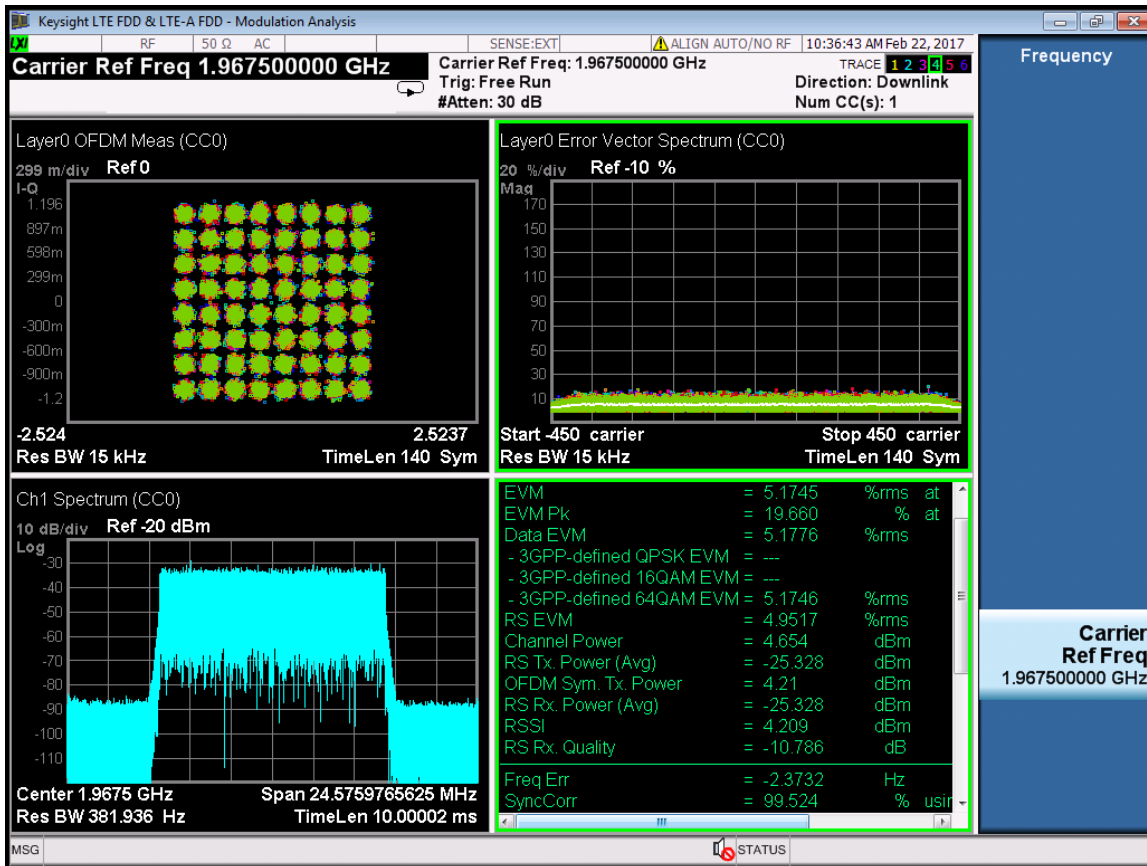
LTE 15M-Port 1-1967.5MHz- E-TM2



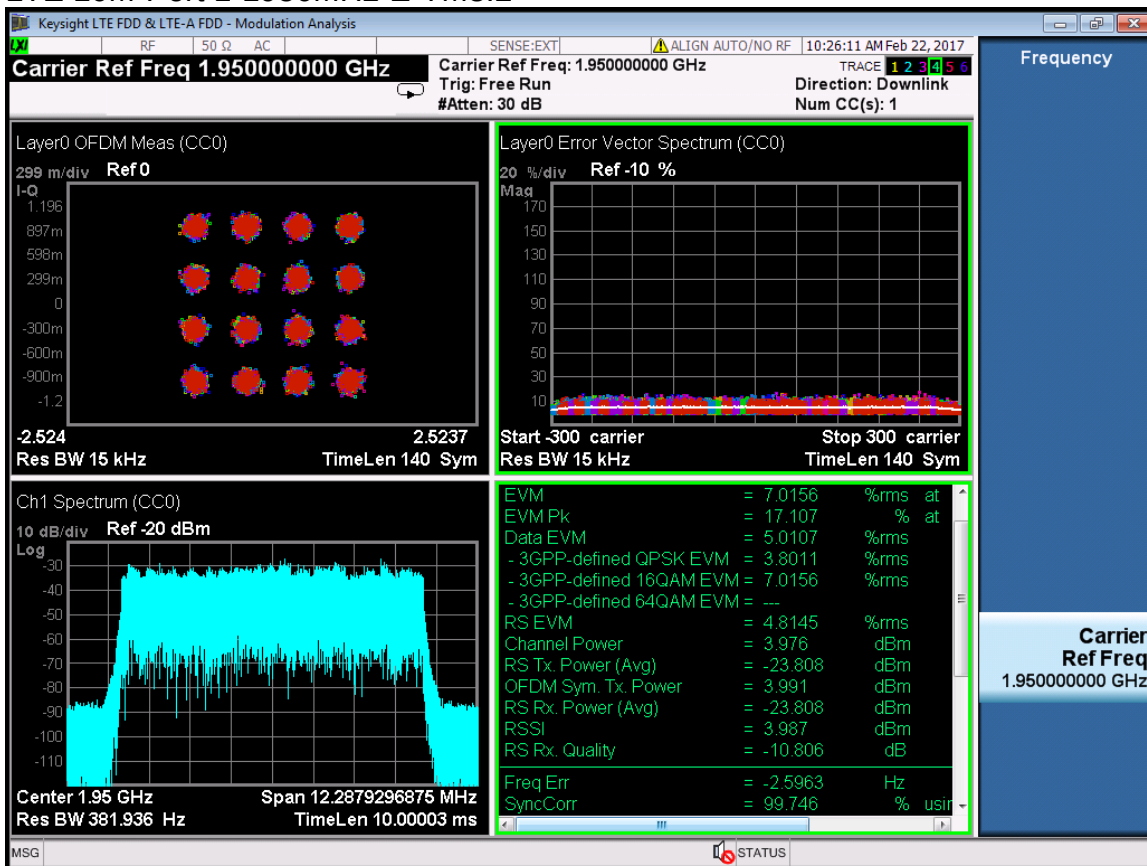
LTE 10M-Port 1-1950MHz-E-TM3.1



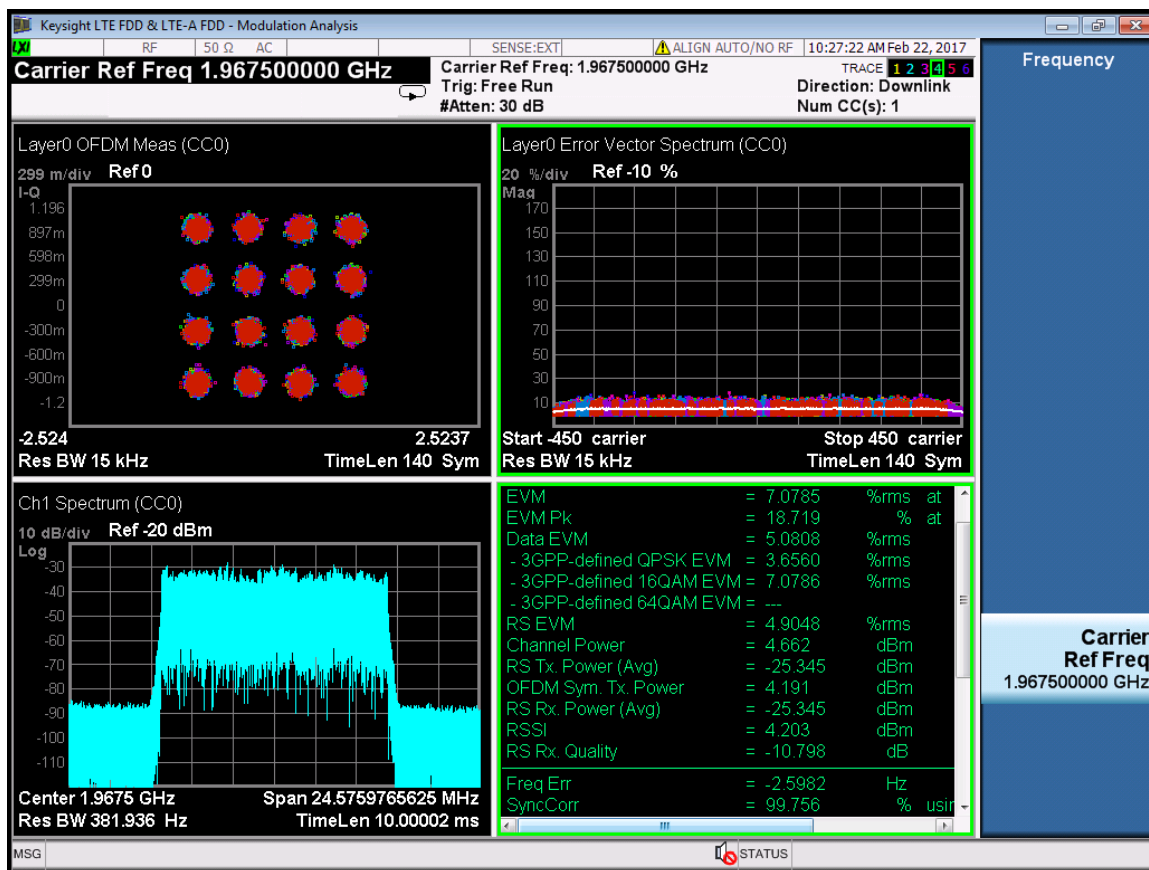
LTE 15M-Port 1-1967.5MHz- E-TM3.1



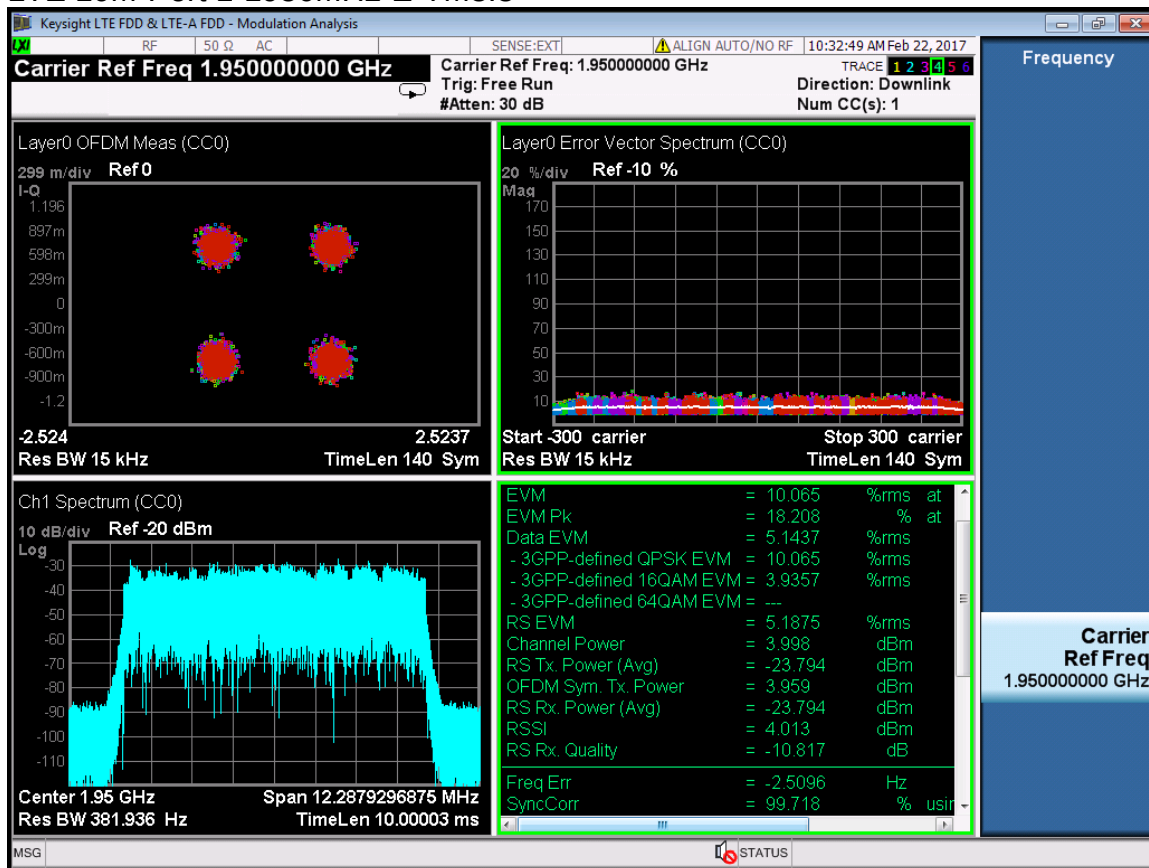
LTE 10M-Port 1-1950MHz-E-TM3.2



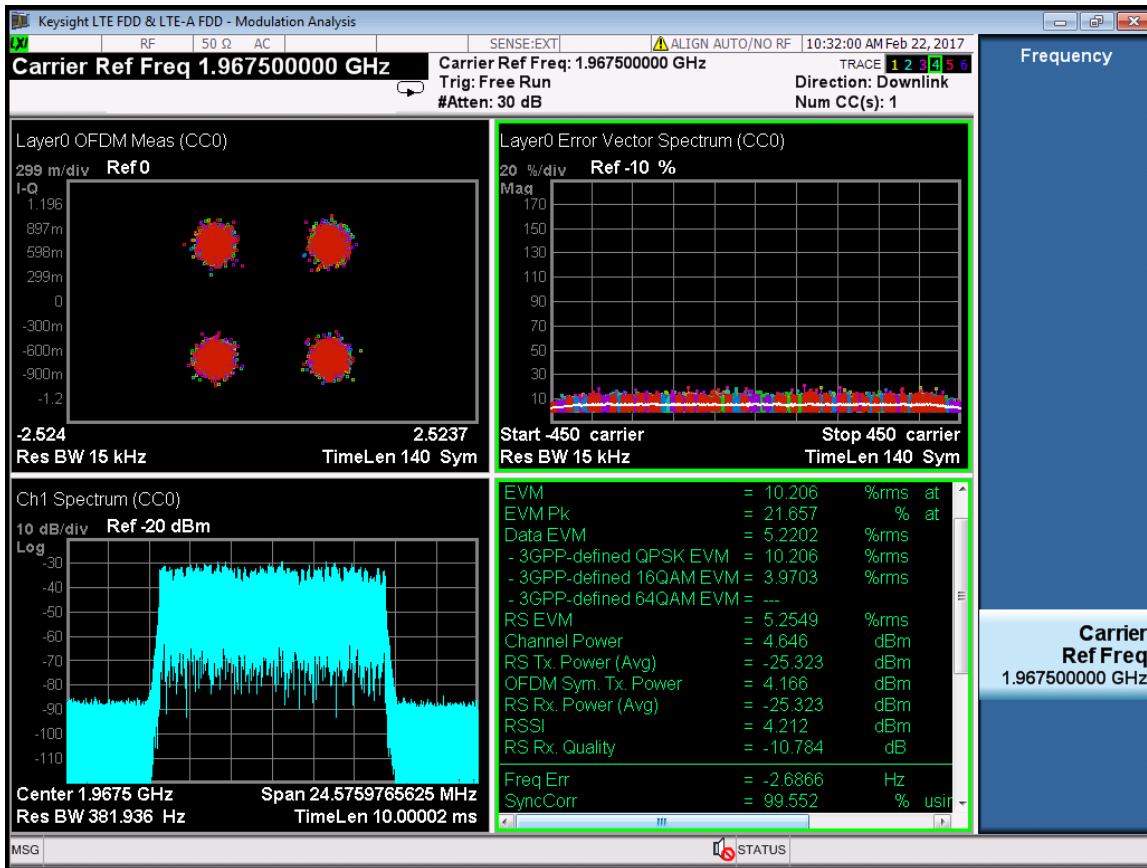
LTE 15M-Port 1-1967.5MHz- E-TM3.2



LTE 10M-Port 1-1950MHz-E-TM3.3

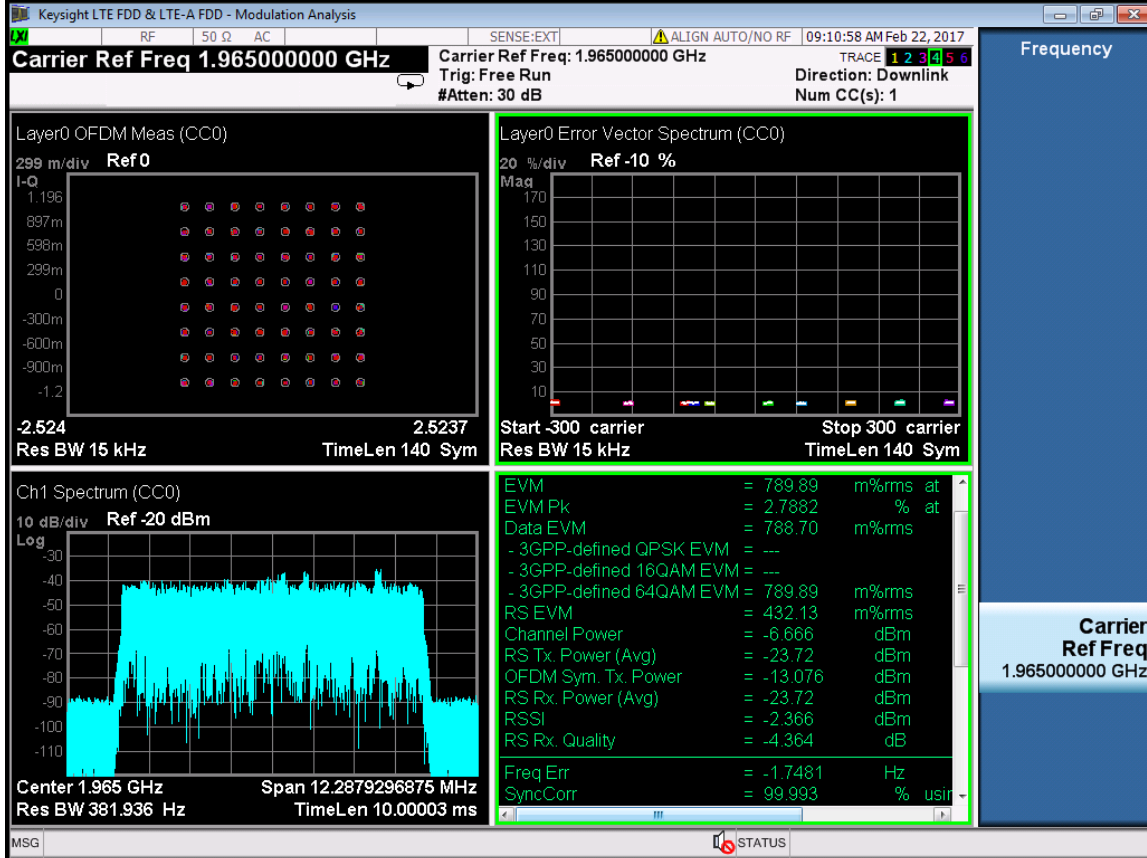


LTE 15M-Port 1-1967.5MHz- E-TM3.3

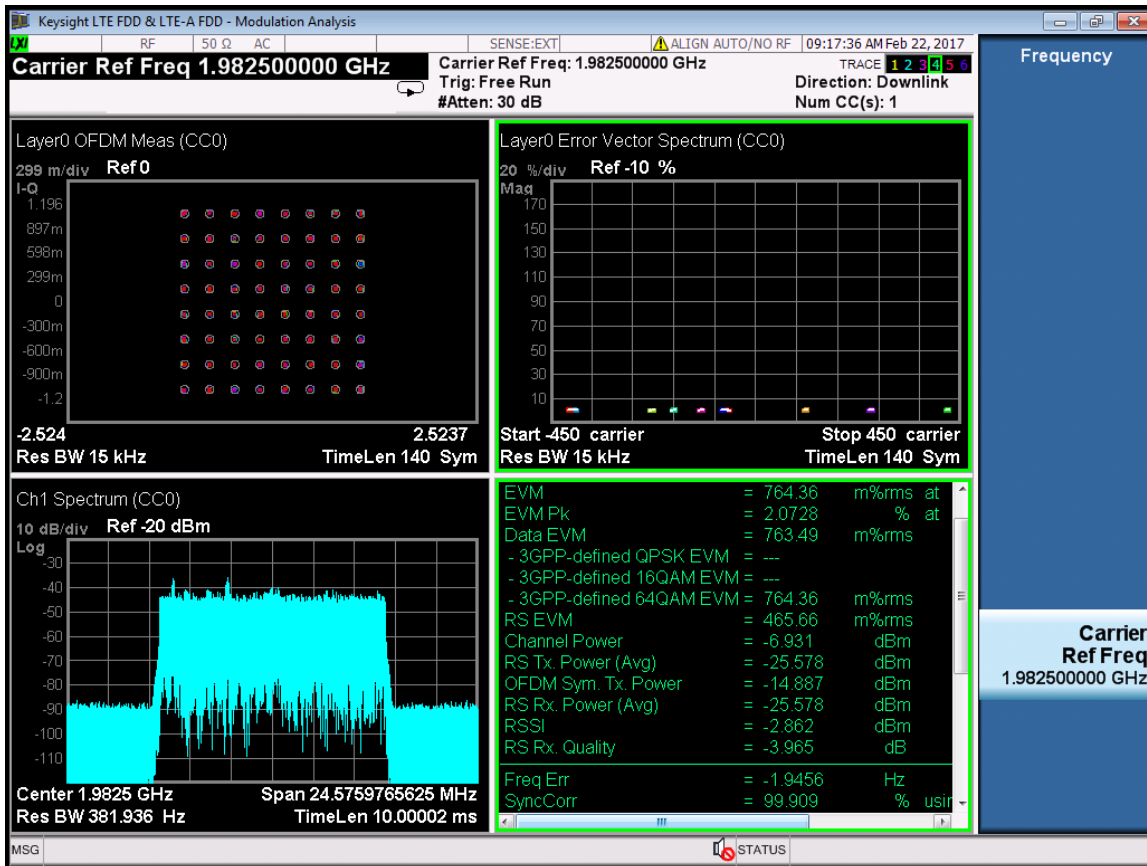


RF 1975M:

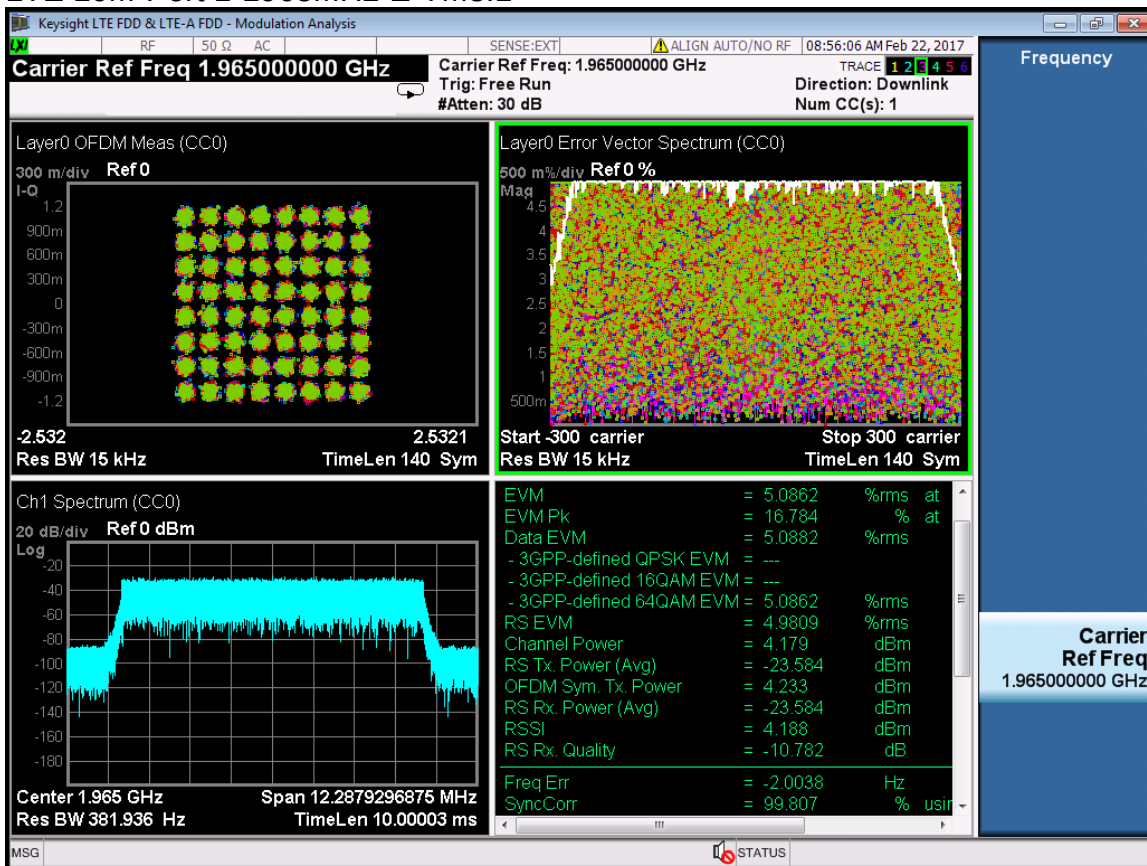
LTE 10M-Port 1-1965MHz-E-TM2



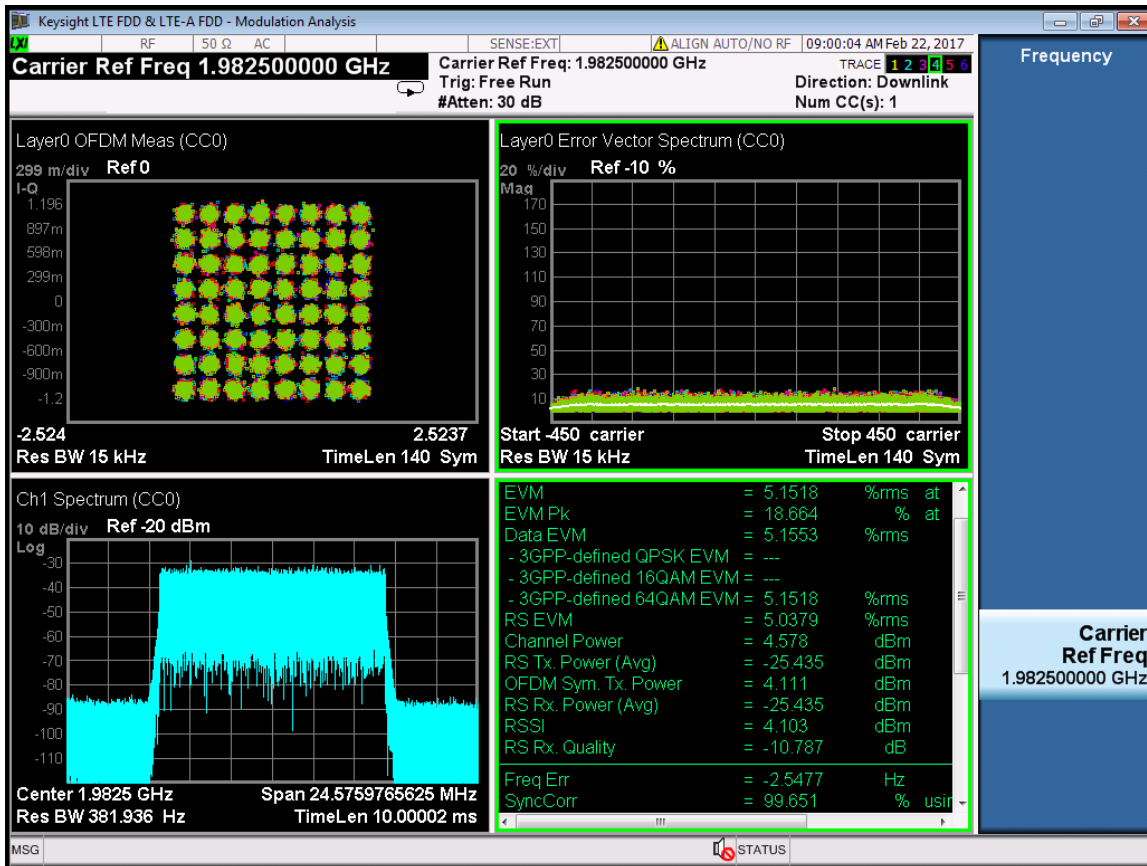
LTE 15M-Port 1-1982.5MHz- E-TM2



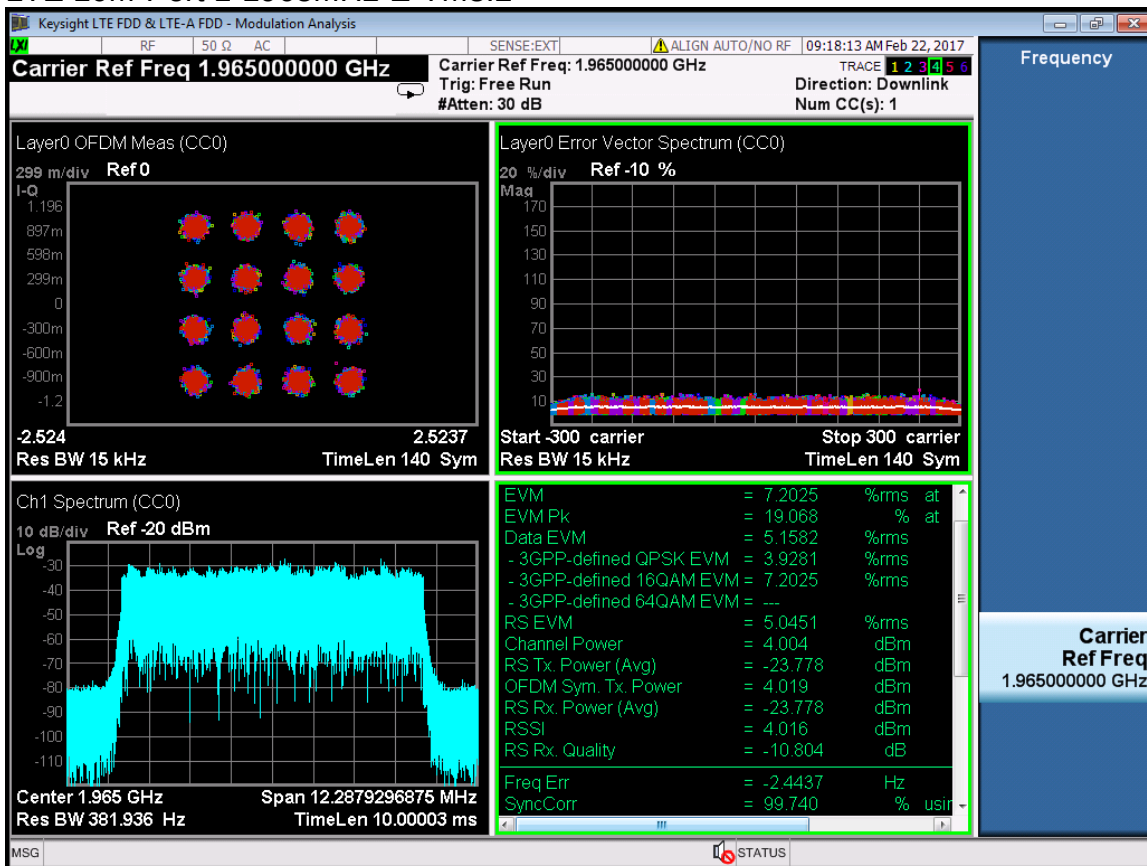
LTE 10M-Port 1-1965MHz-E-TM3.1



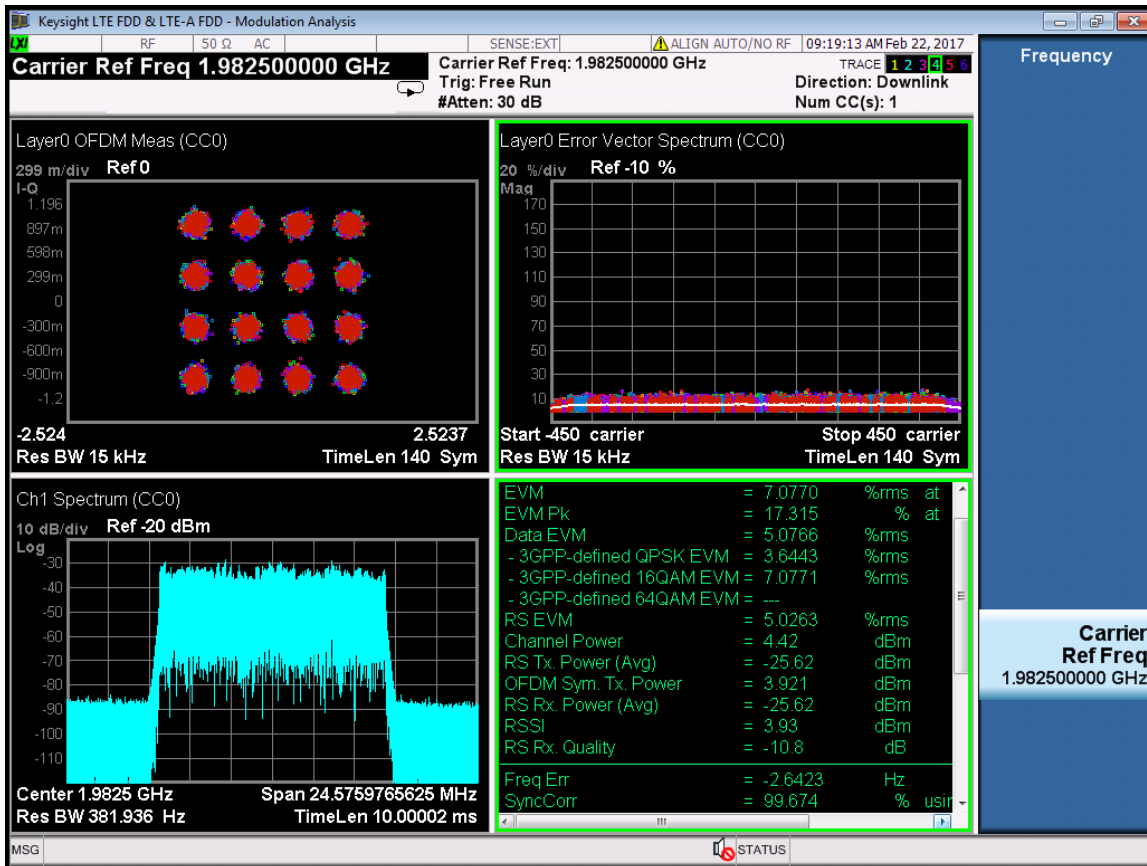
LTE 15M-Port 1-1982.5MHz- E-TM3.1



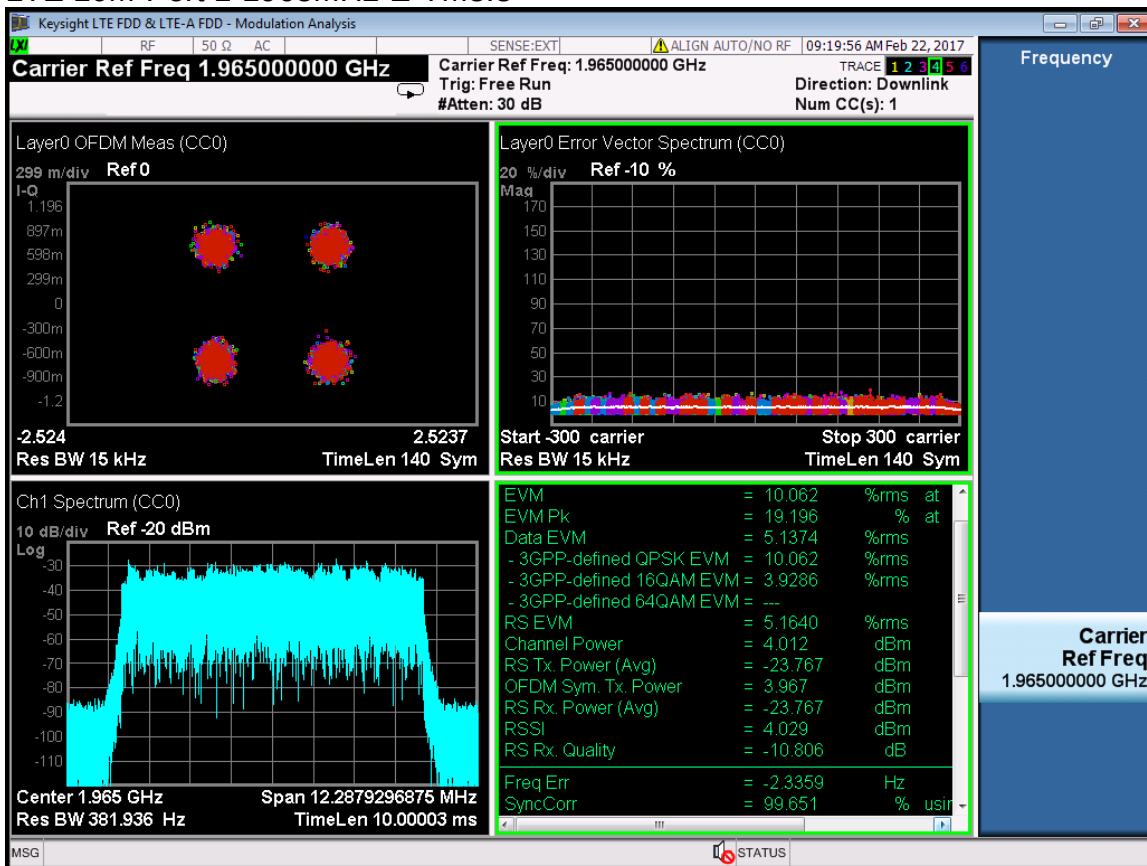
LTE 10M-Port 1-1965MHz-E-TM3.2



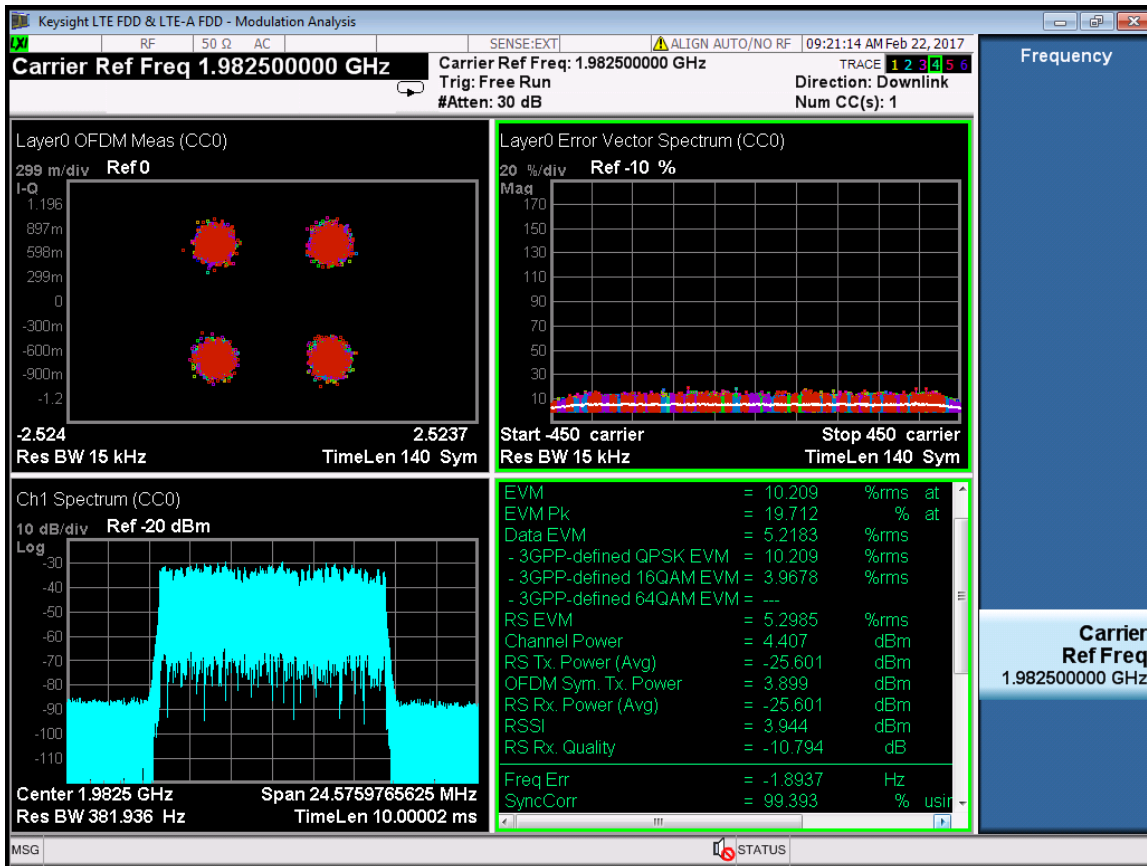
LTE 15M-Port 1-1982.5MHz- E-TM3.2



LTE 10M-Port 1-1965MHz-E-TM3.3

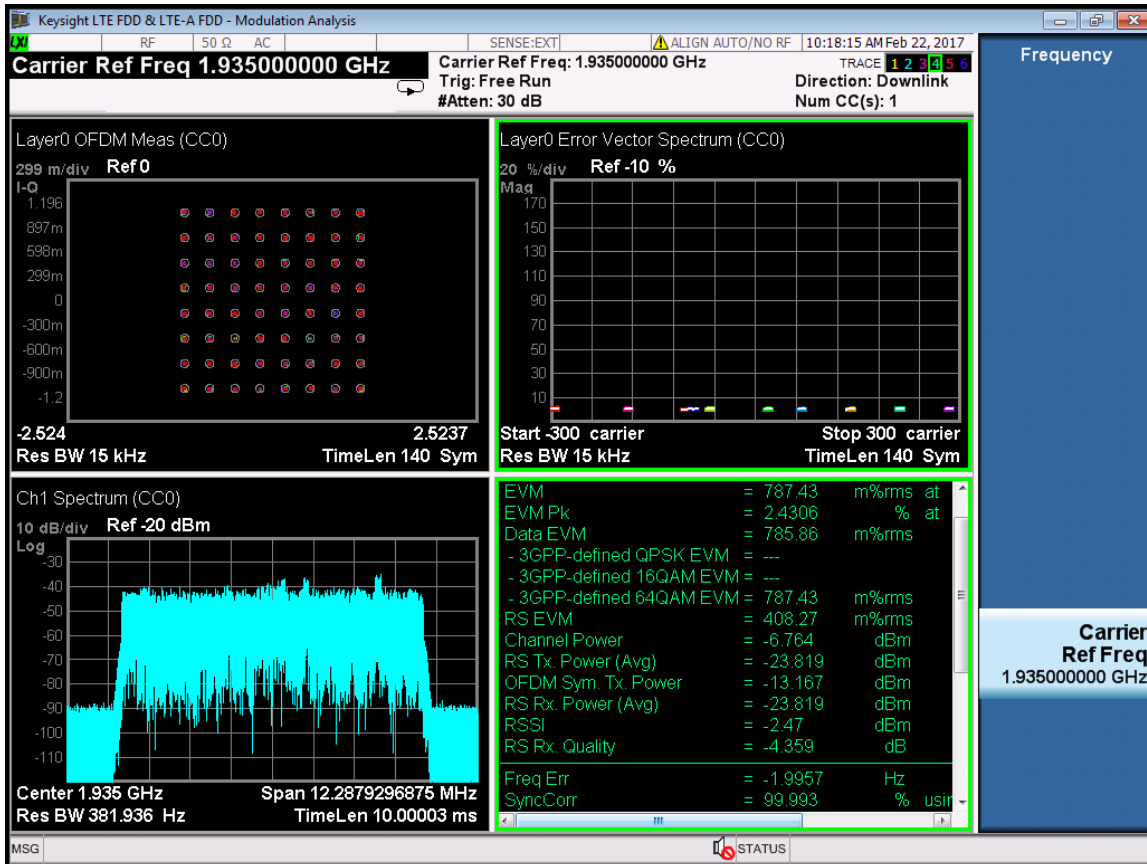


LTE 15M-Port 1-1982.5MHz- E-TM3.3

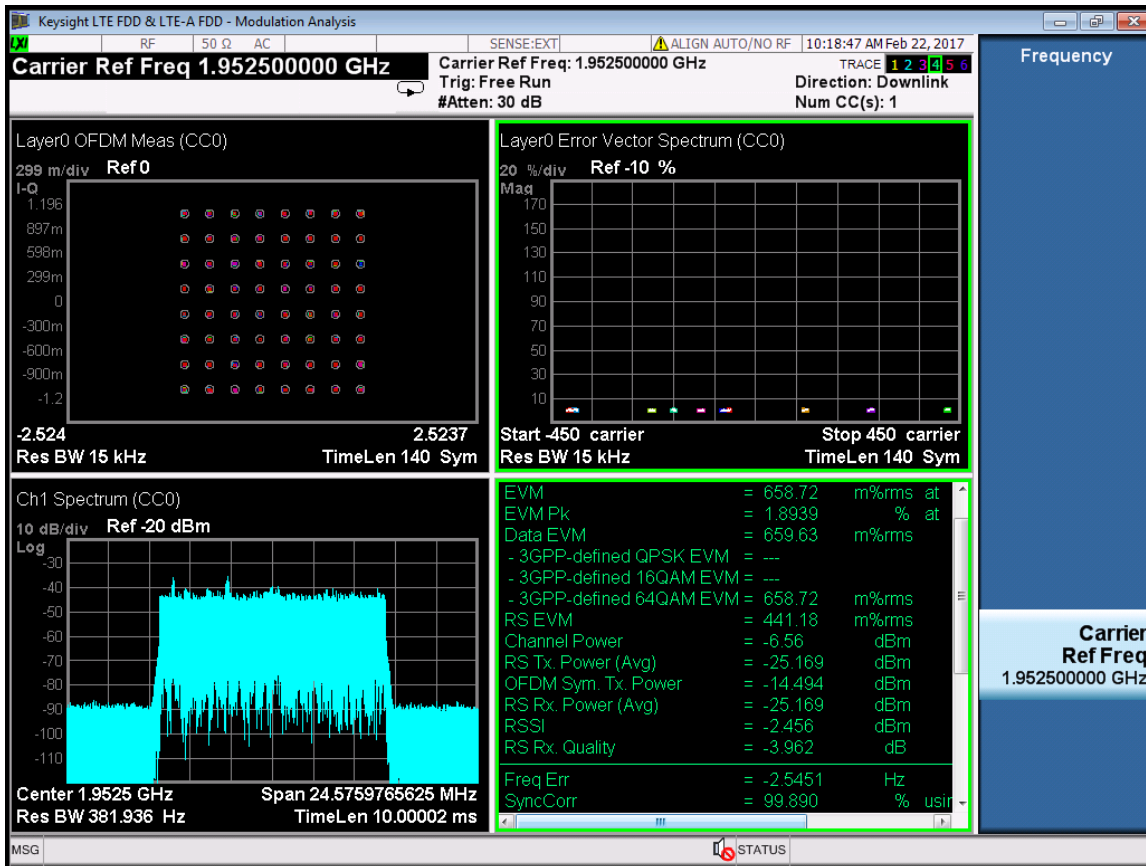


RF 1945M:

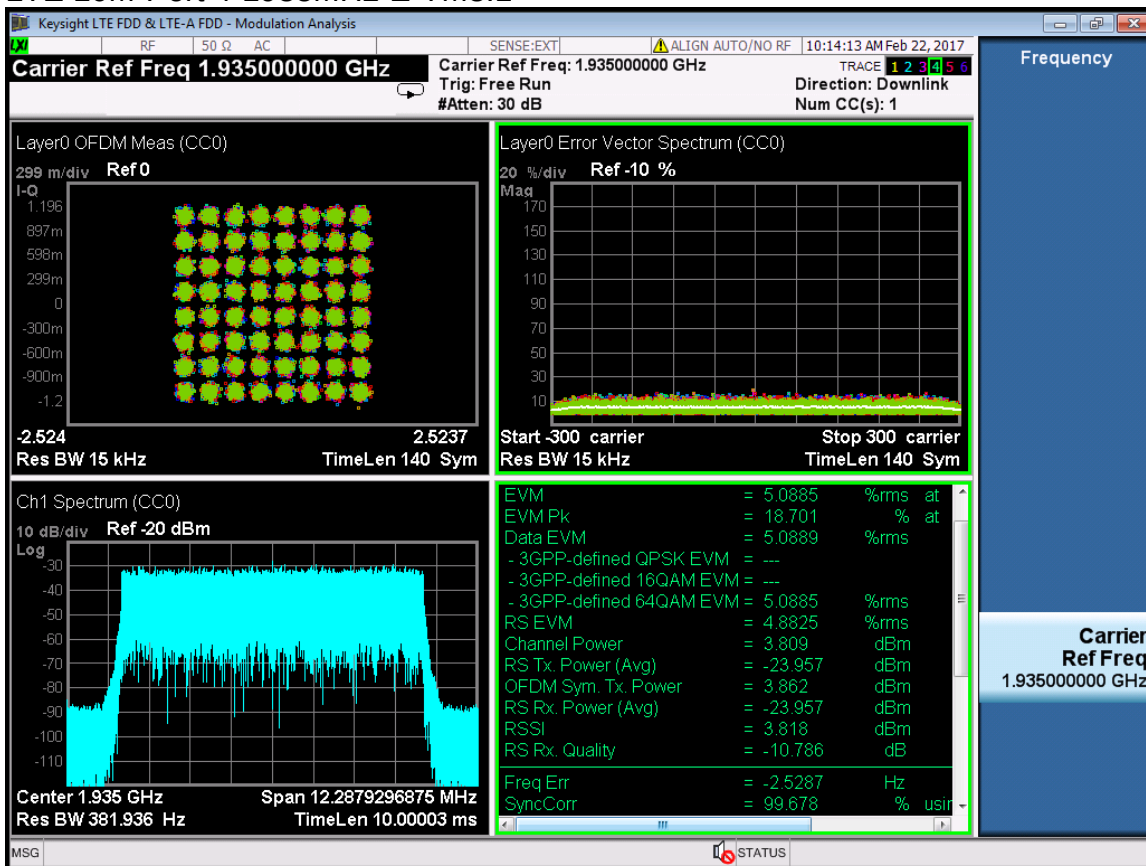
LTE 10M-Port 4-1935MHz-E-TM2



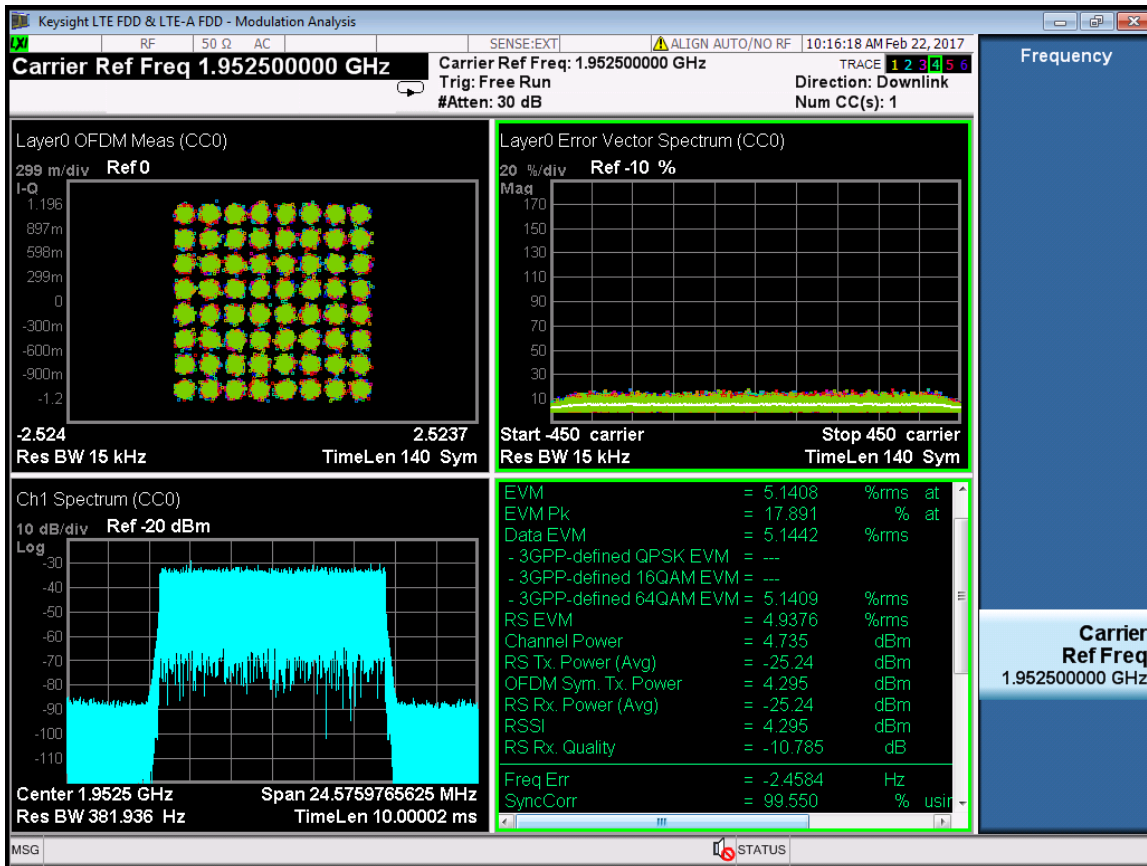
LTE 15M-Port 4-1952.5MHz- E-TM2



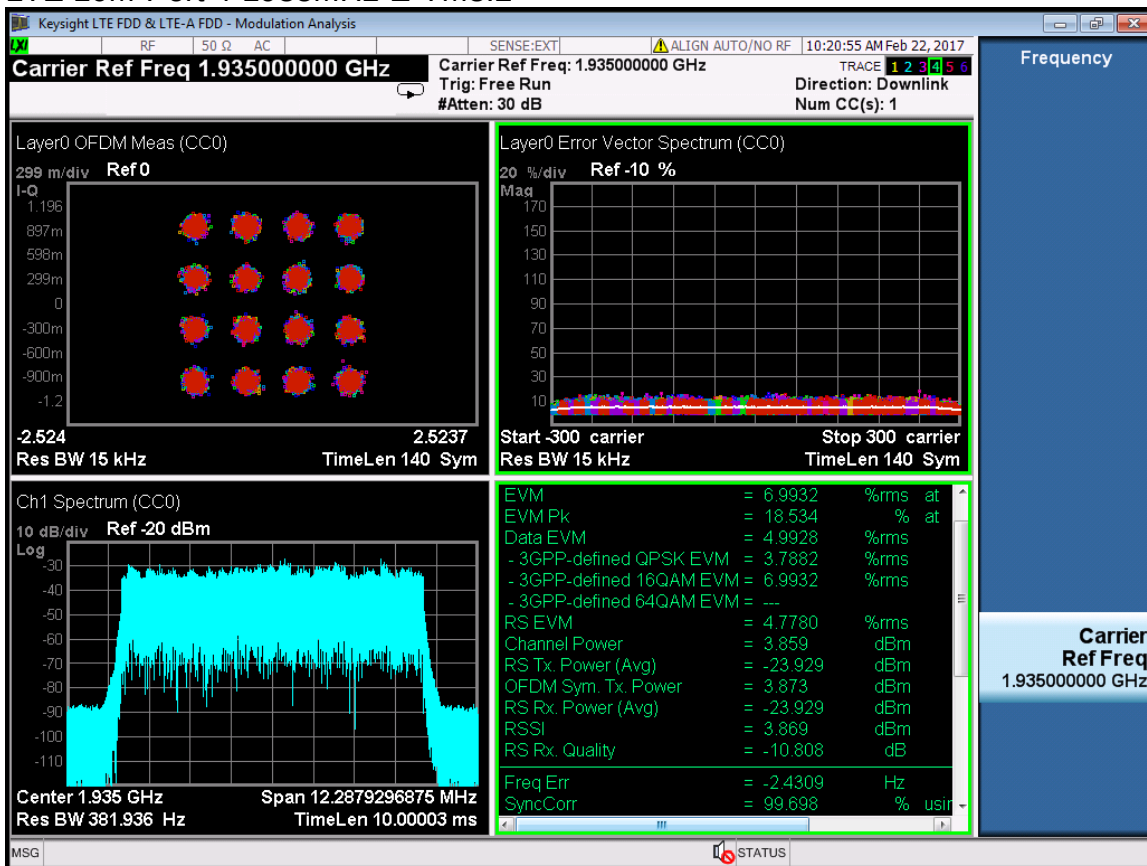
LTE 10M-Port 4-1935MHz-E-TM3.1



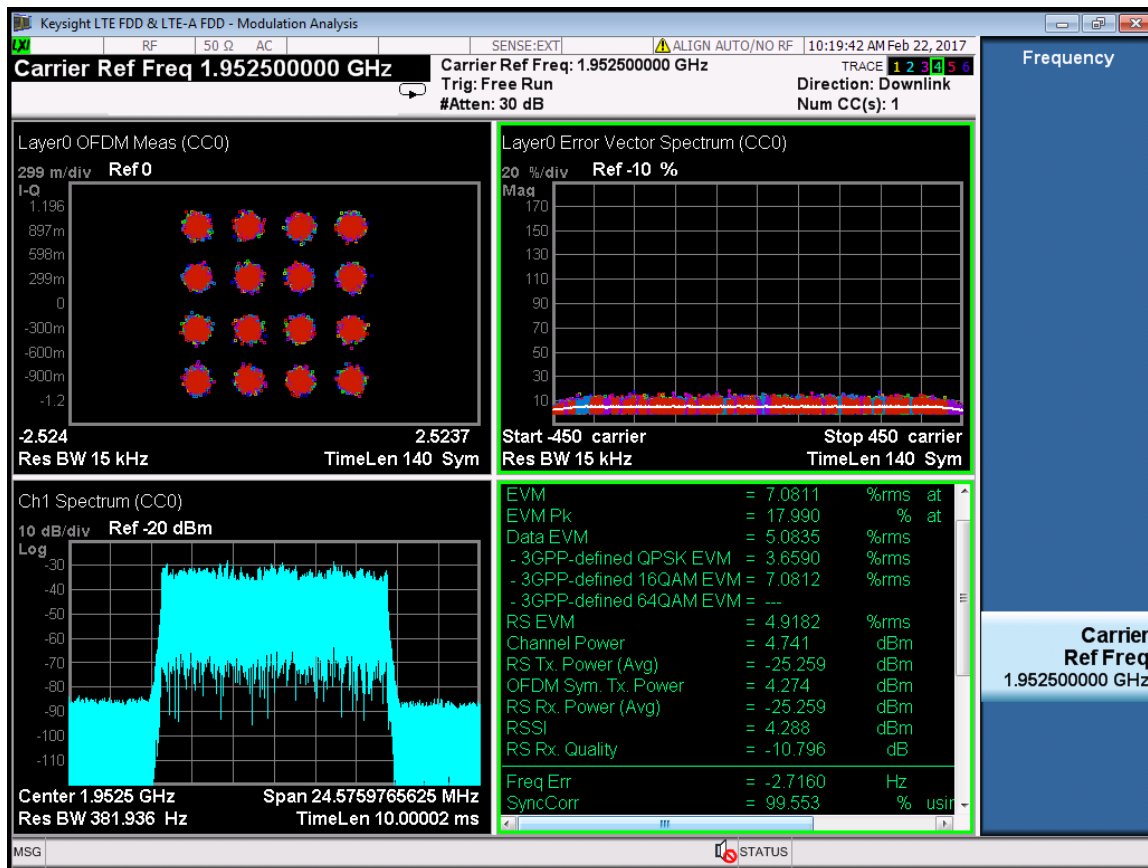
LTE 15M-Port 4-1952.5MHz- E-TM3.1



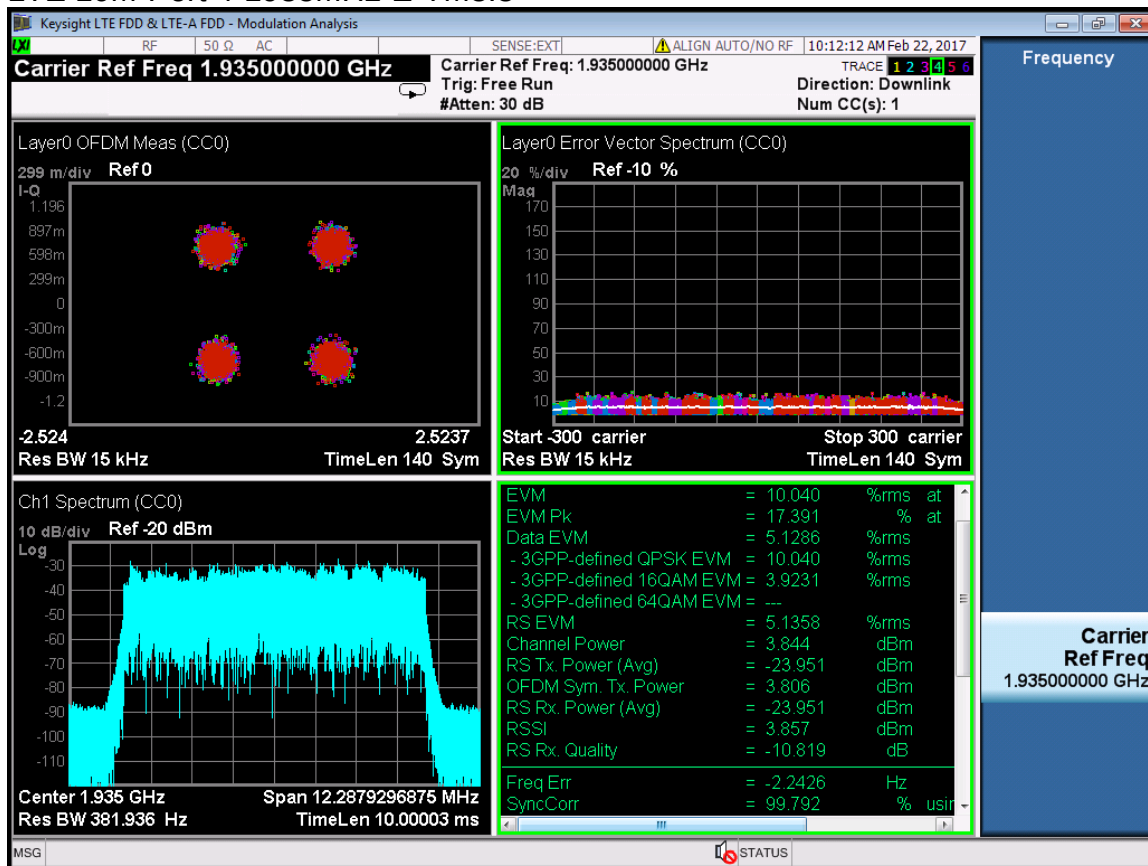
LTE 10M-Port 4-1935MHz-E-TM3.2



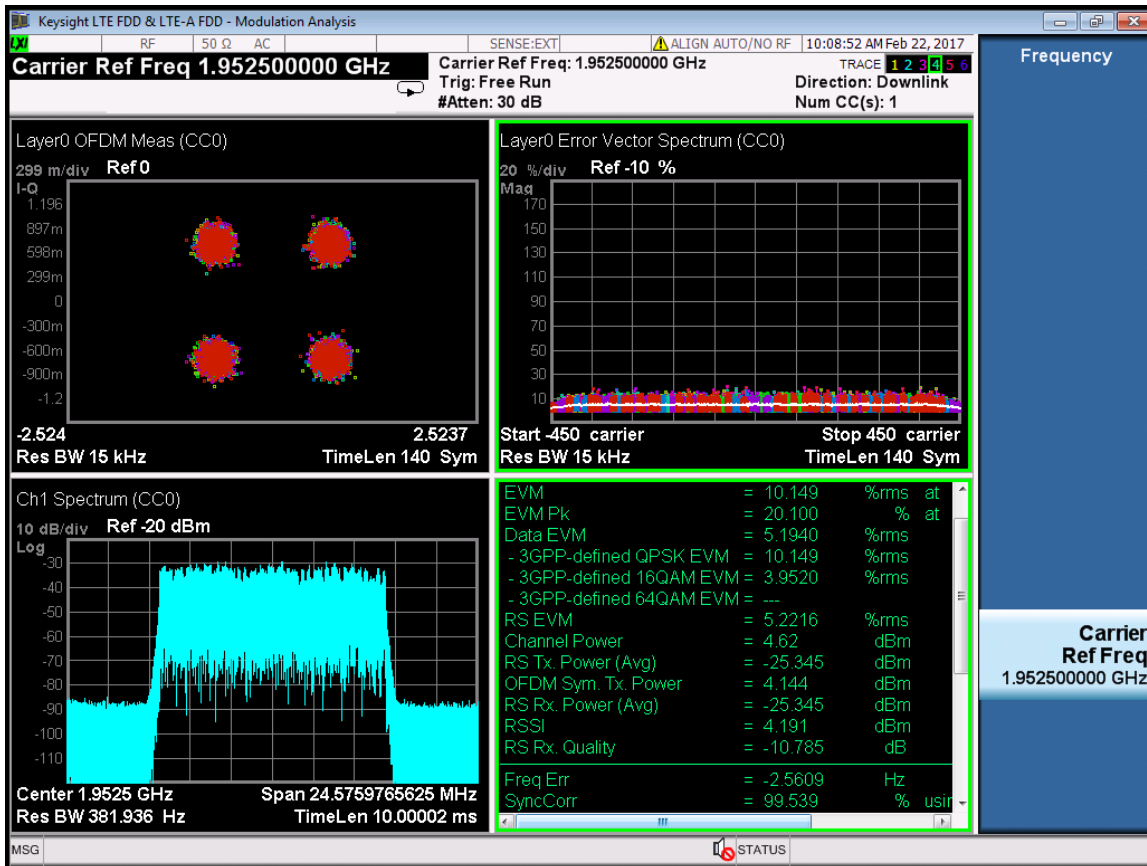
LTE 15M-Port 4-1952.5MHz- E-TM3.2



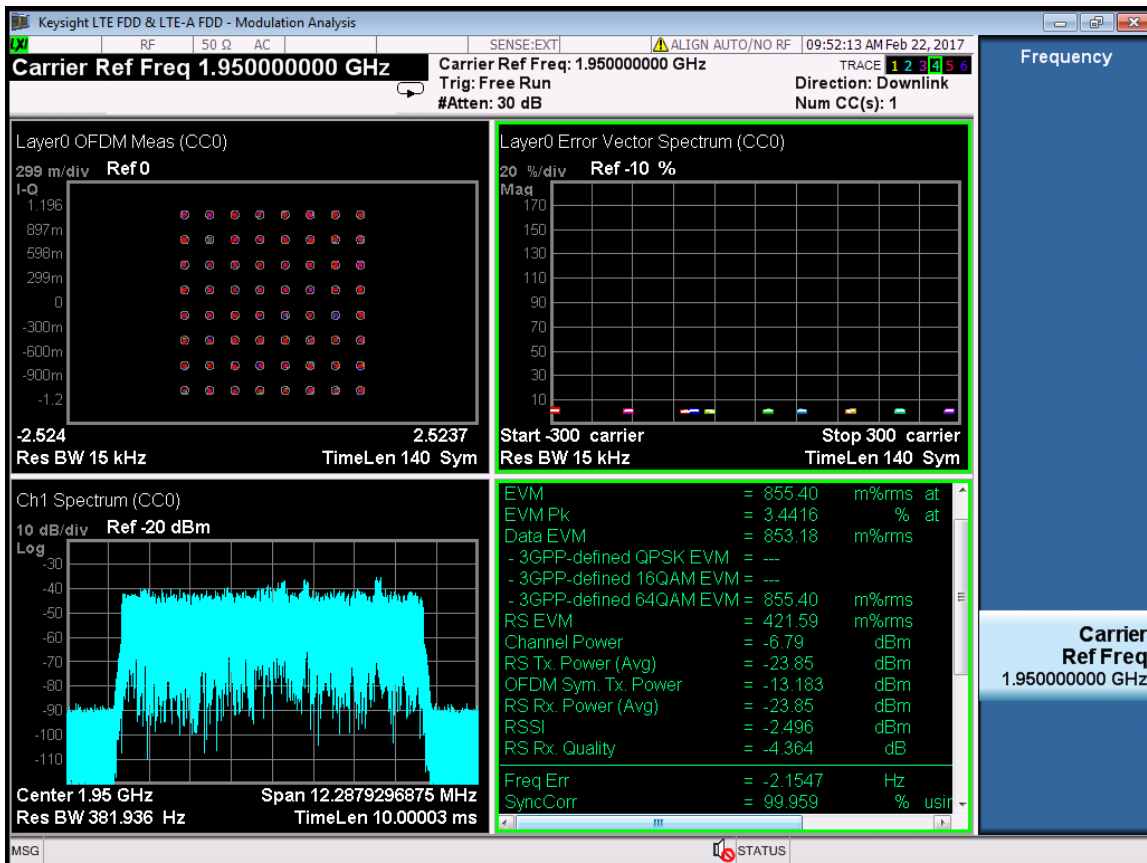
LTE 10M-Port 4-1935MHz-E-TM3.3



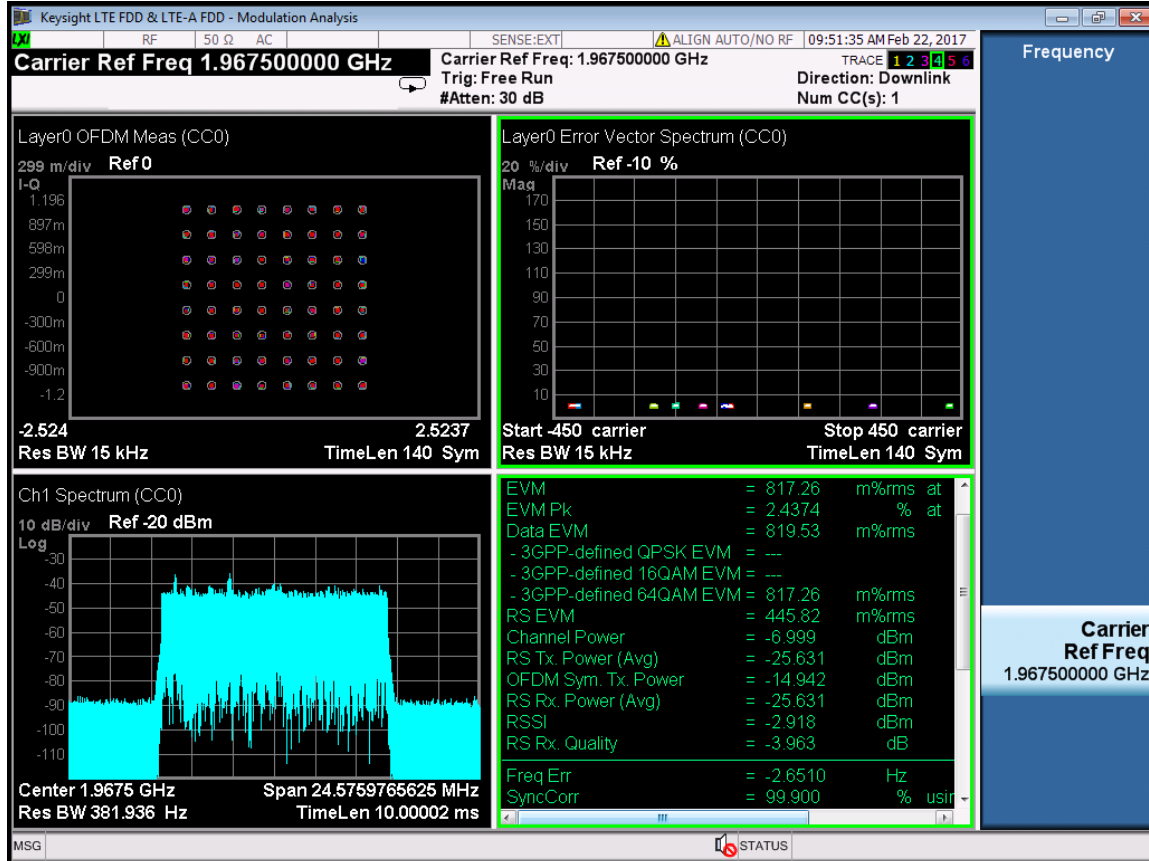
LTE 15M-Port 4-1952.5MHz- E-TM3.3



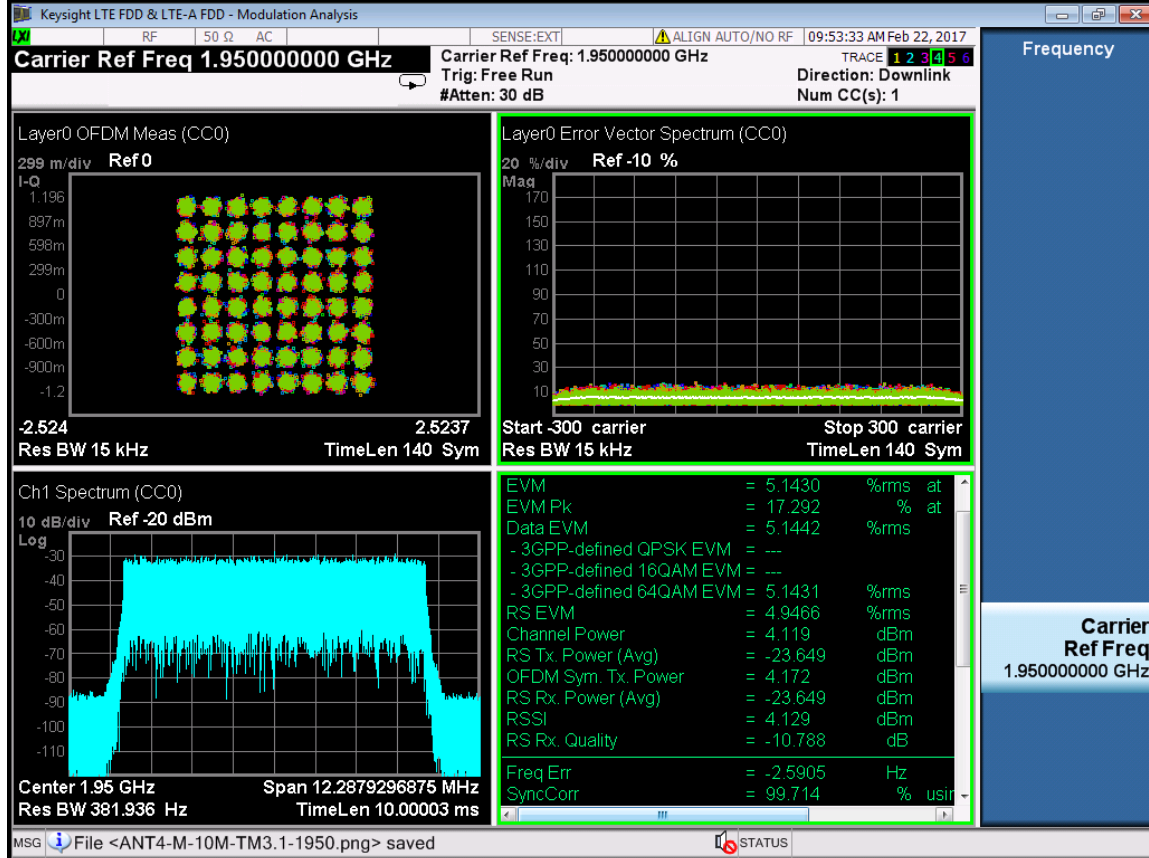
RF 1960M:
LTE 10M-Port 4-1950MHz-E-TM2



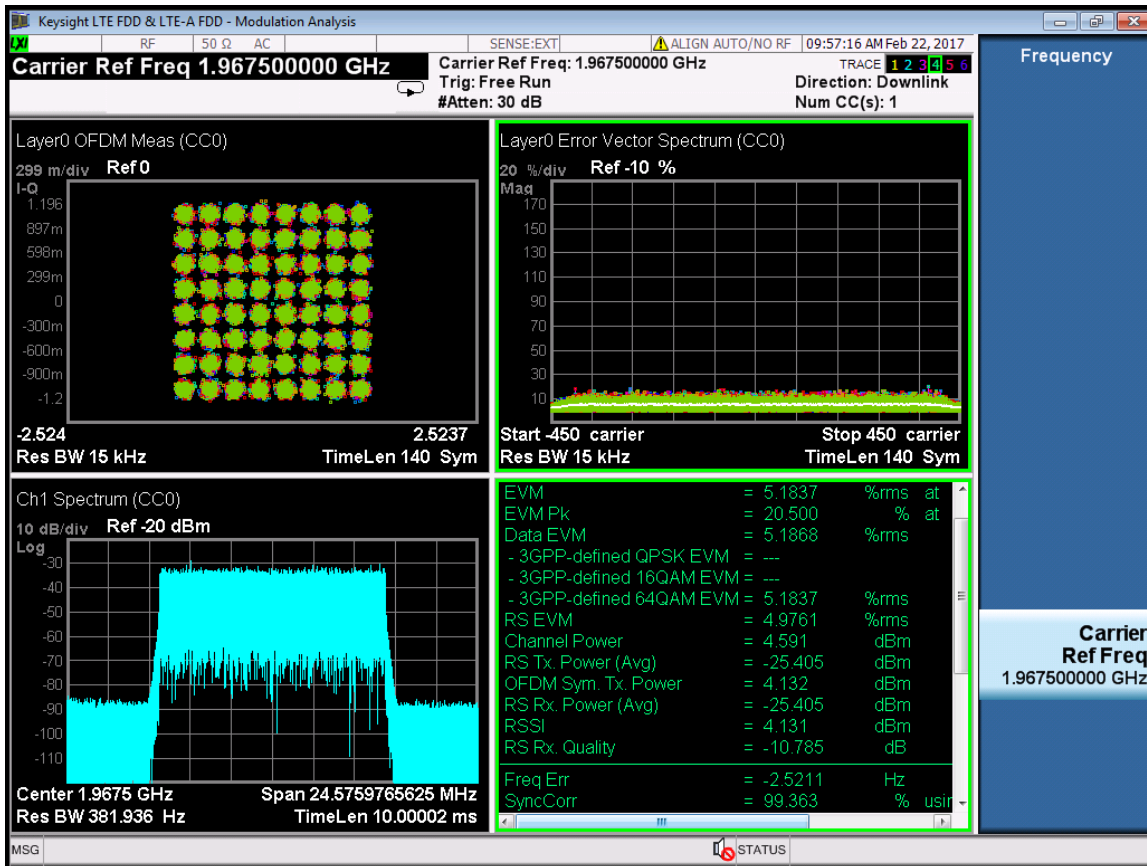
LTE 15M-Port 4-1967.5MHz- E-TM2



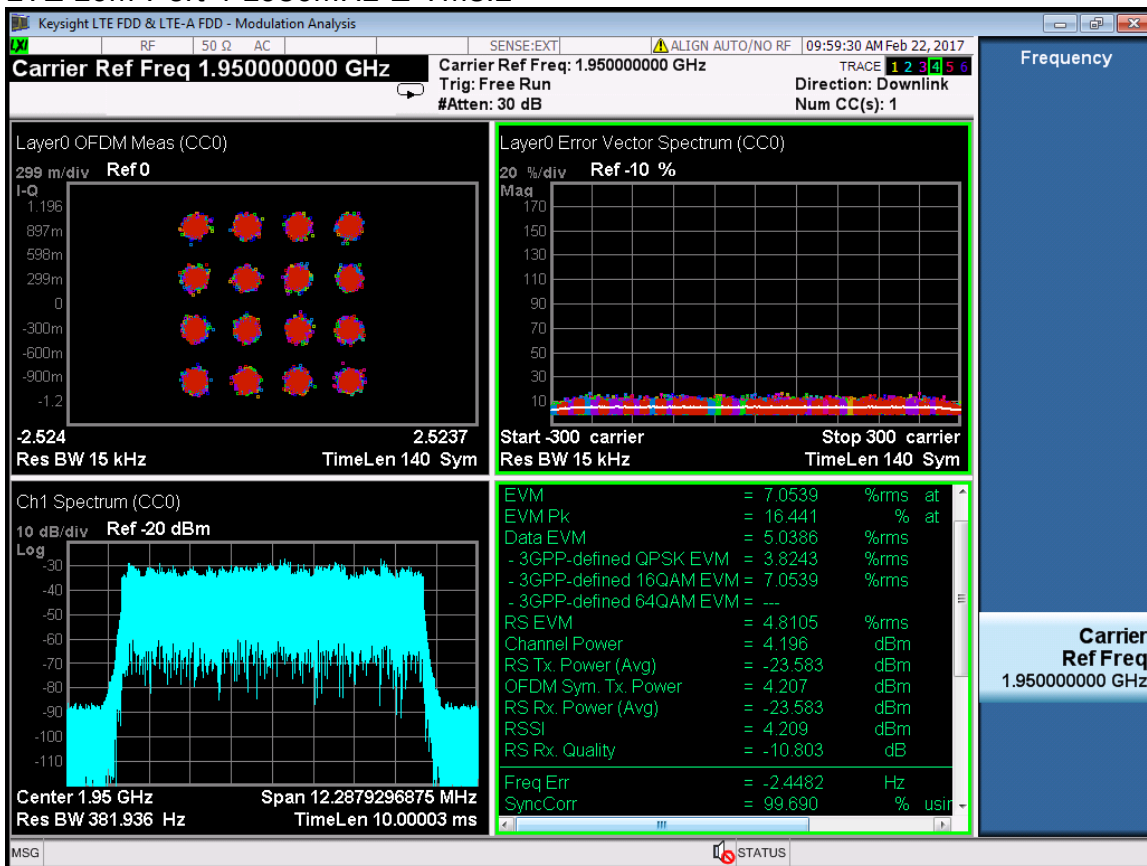
LTE 10M-Port 4-1950MHz-E-TM3.1



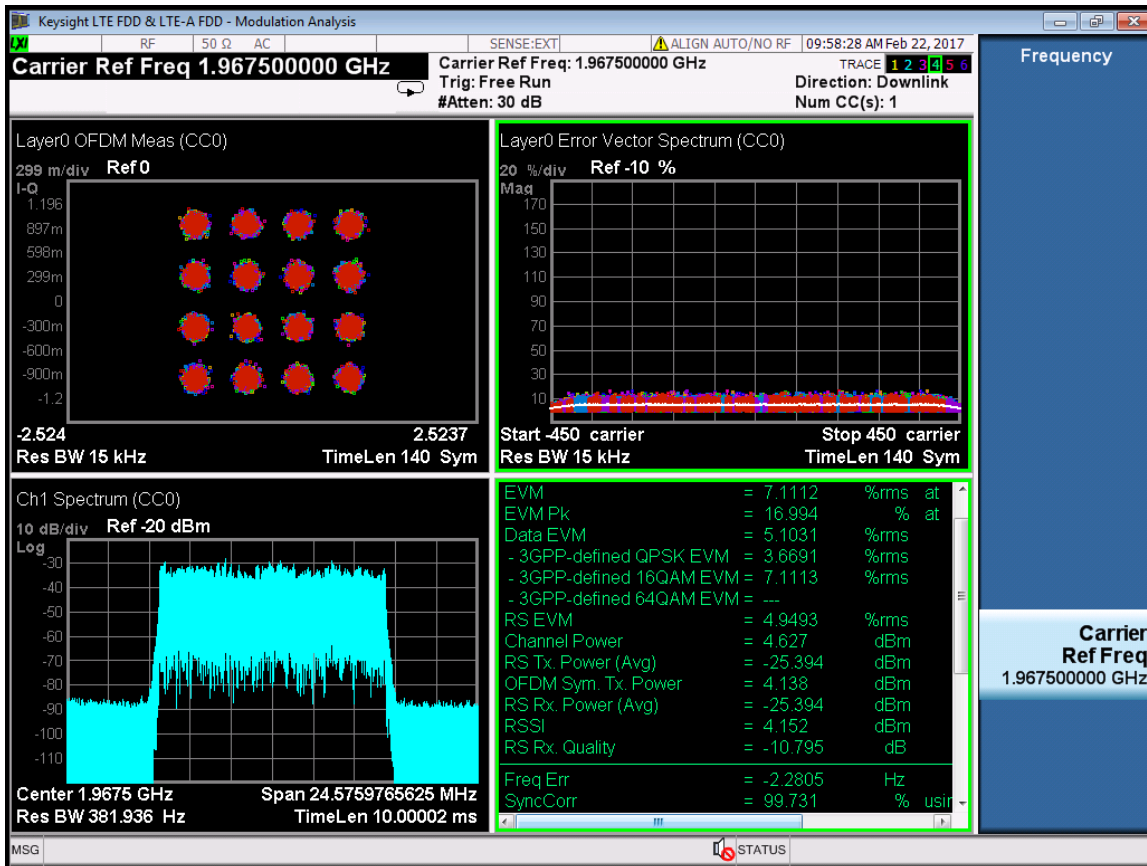
LTE 15M-Port 4-1967.5MHz- E-TM3.1



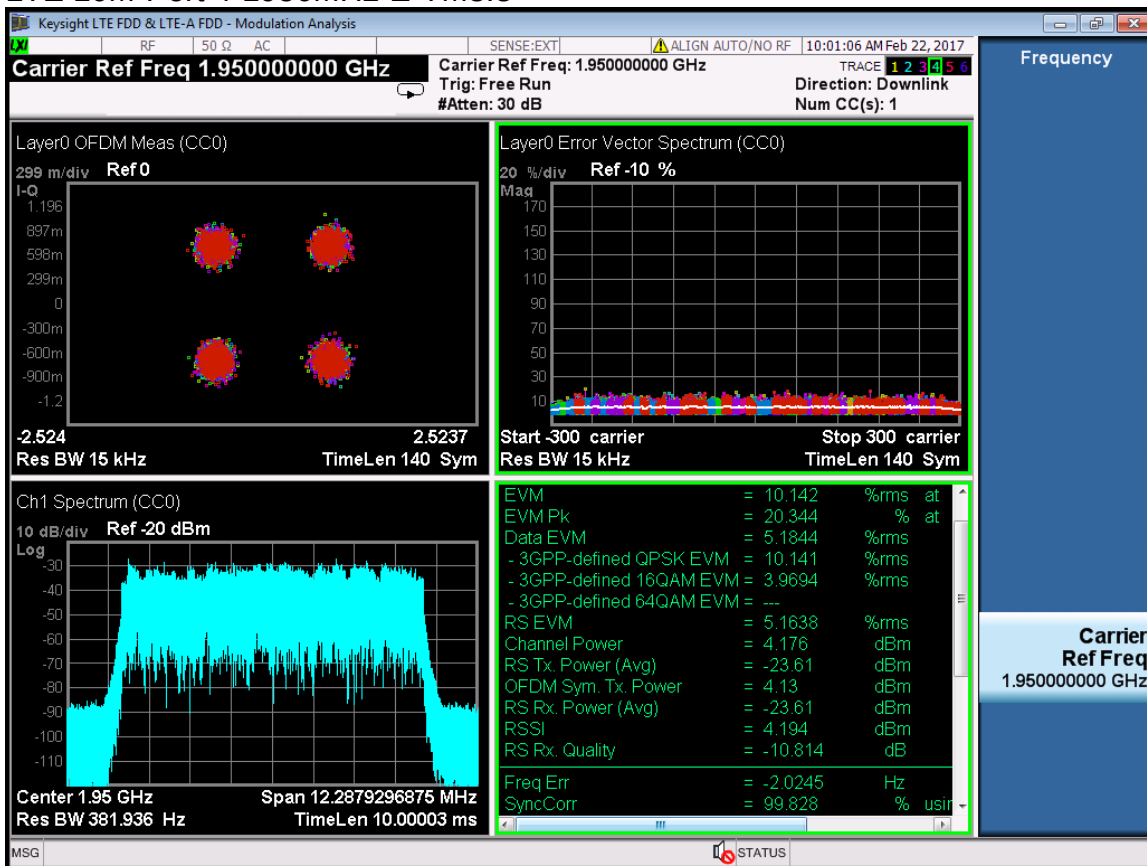
LTE 10M-Port 4-1950MHz-E-TM3.2



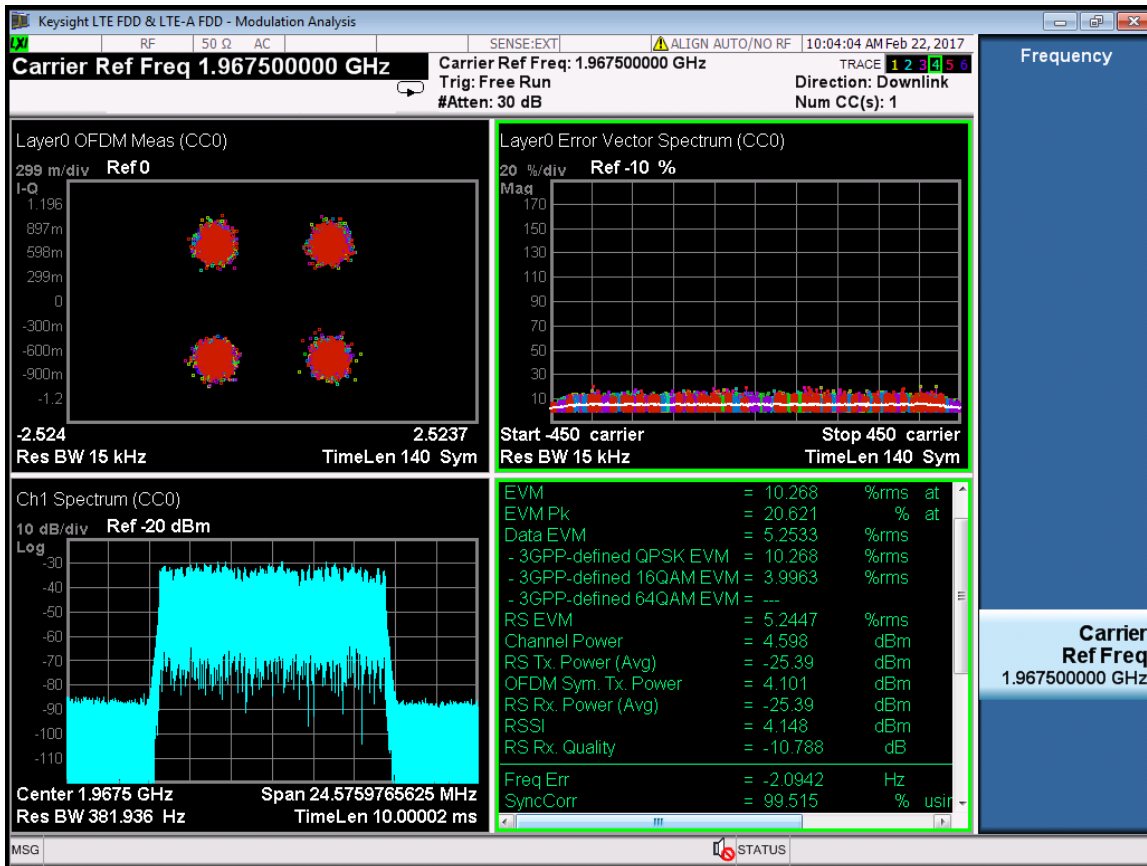
LTE 15M-Port 4-1967.5MHz- E-TM3.2



LTE 10M-Port 4-1950MHz-E-TM3.3

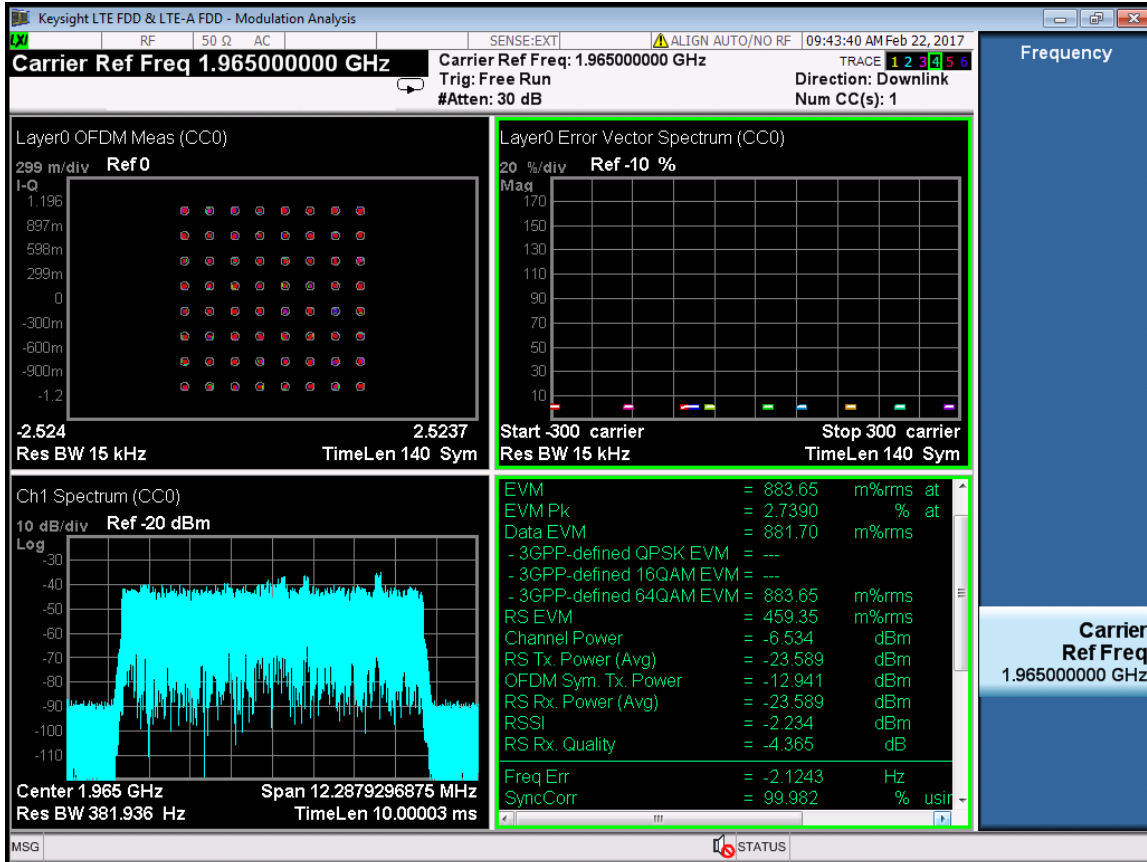


LTE 15M-Port 4-1967.5MHz- E-TM3.3

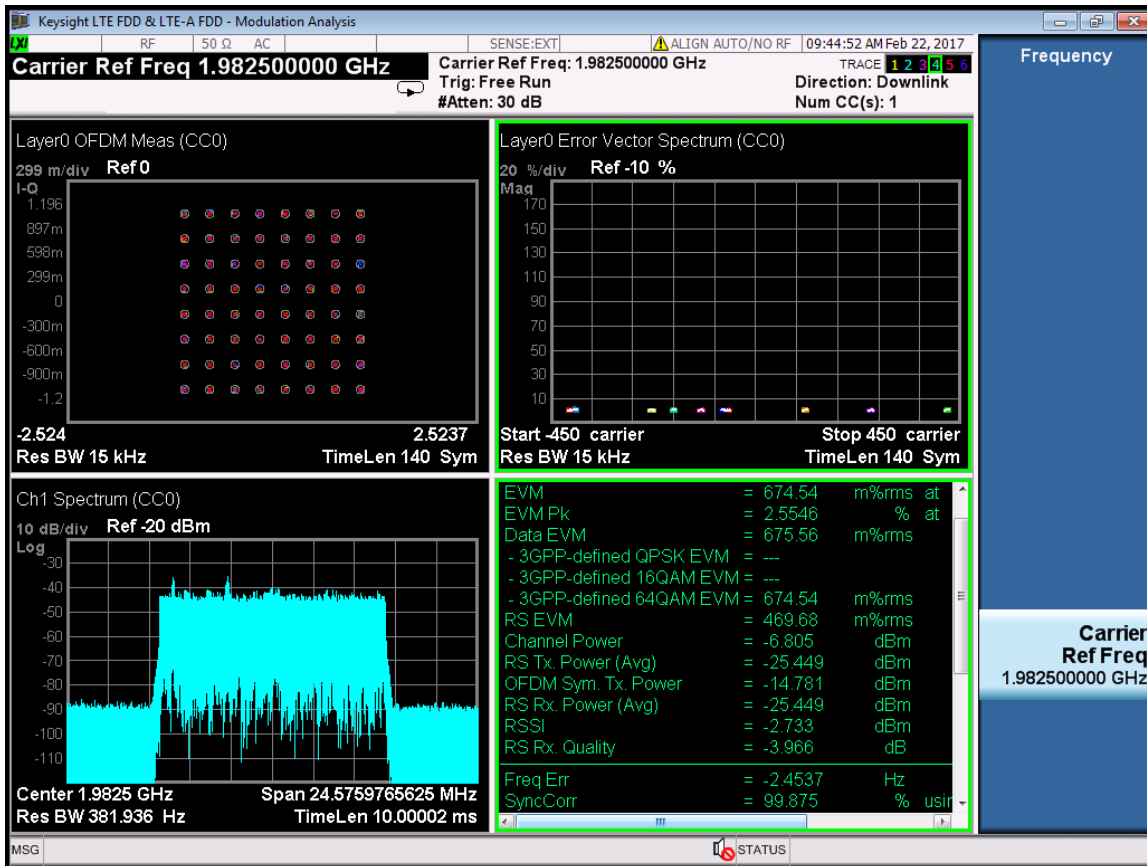


RF 1975M:

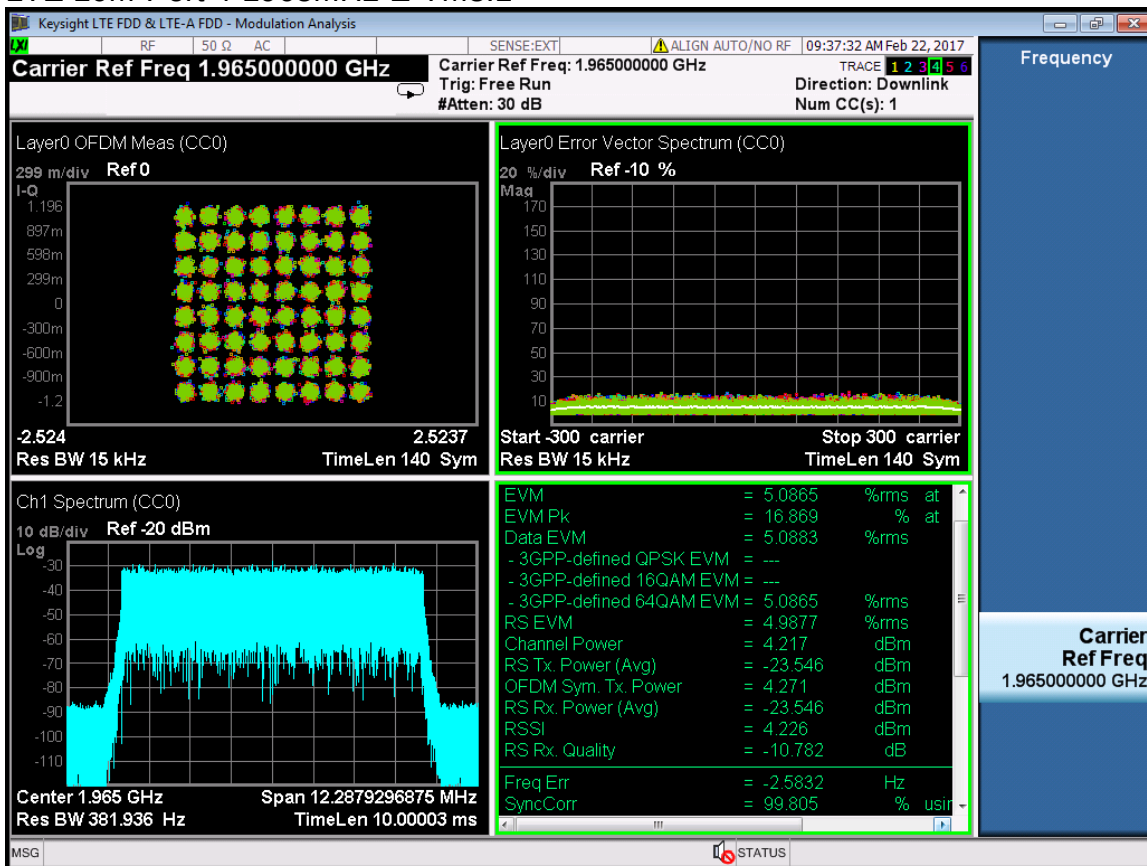
LTE 10M-Port 4-1965MHz-E-TM2



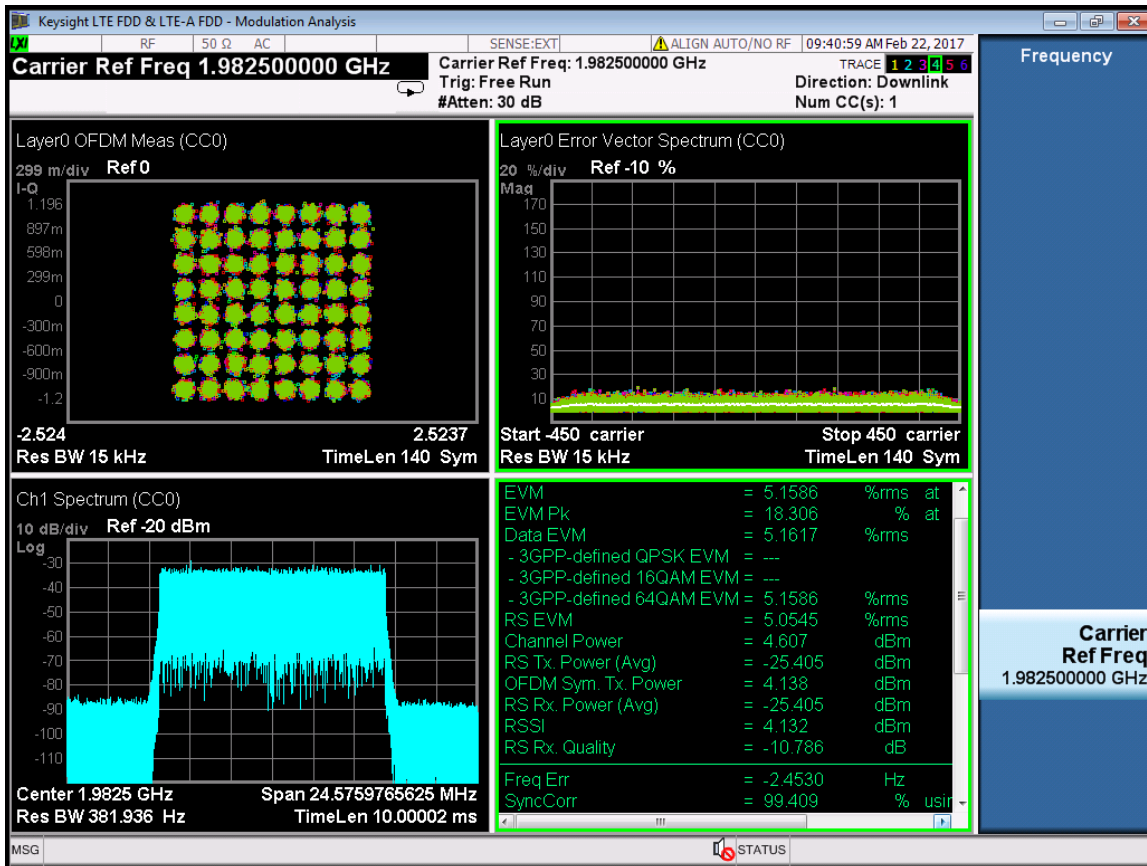
LTE 15M-Port 4-1982.5MHz- E-TM2



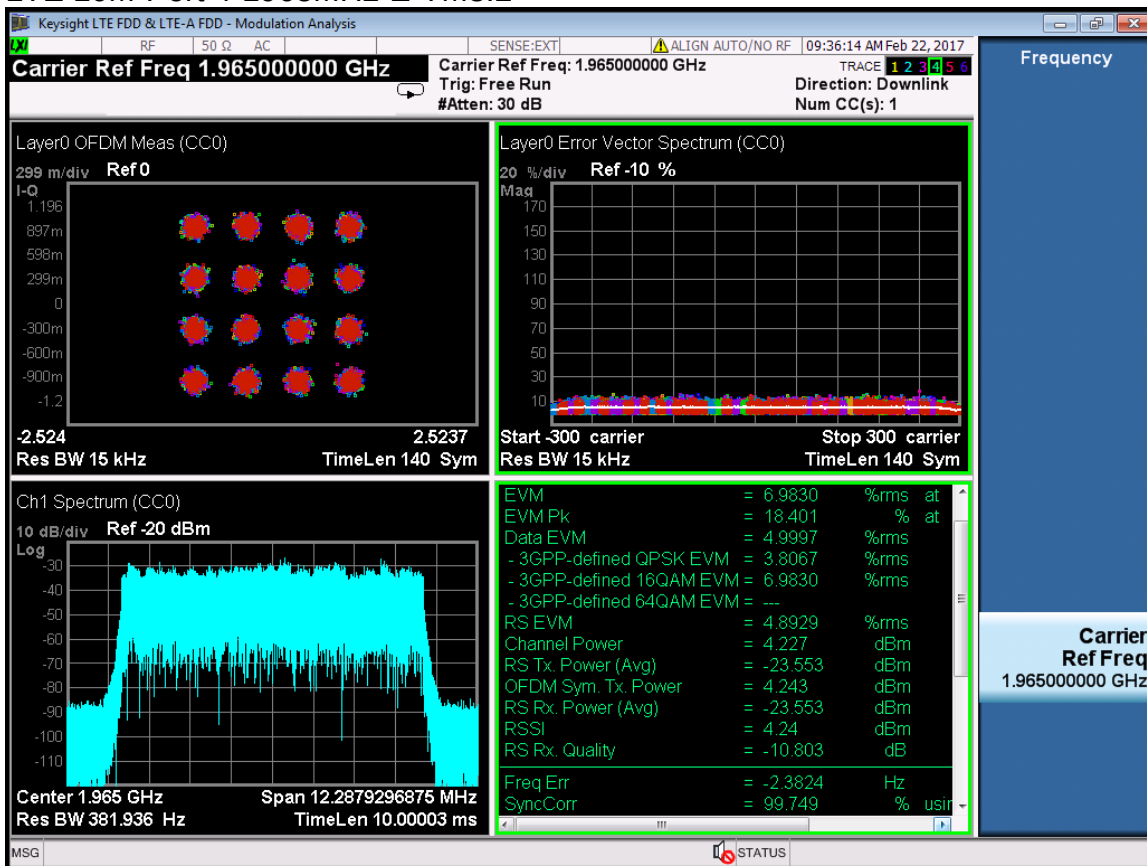
LTE 10M-Port 4-1965MHz-E-TM3.1



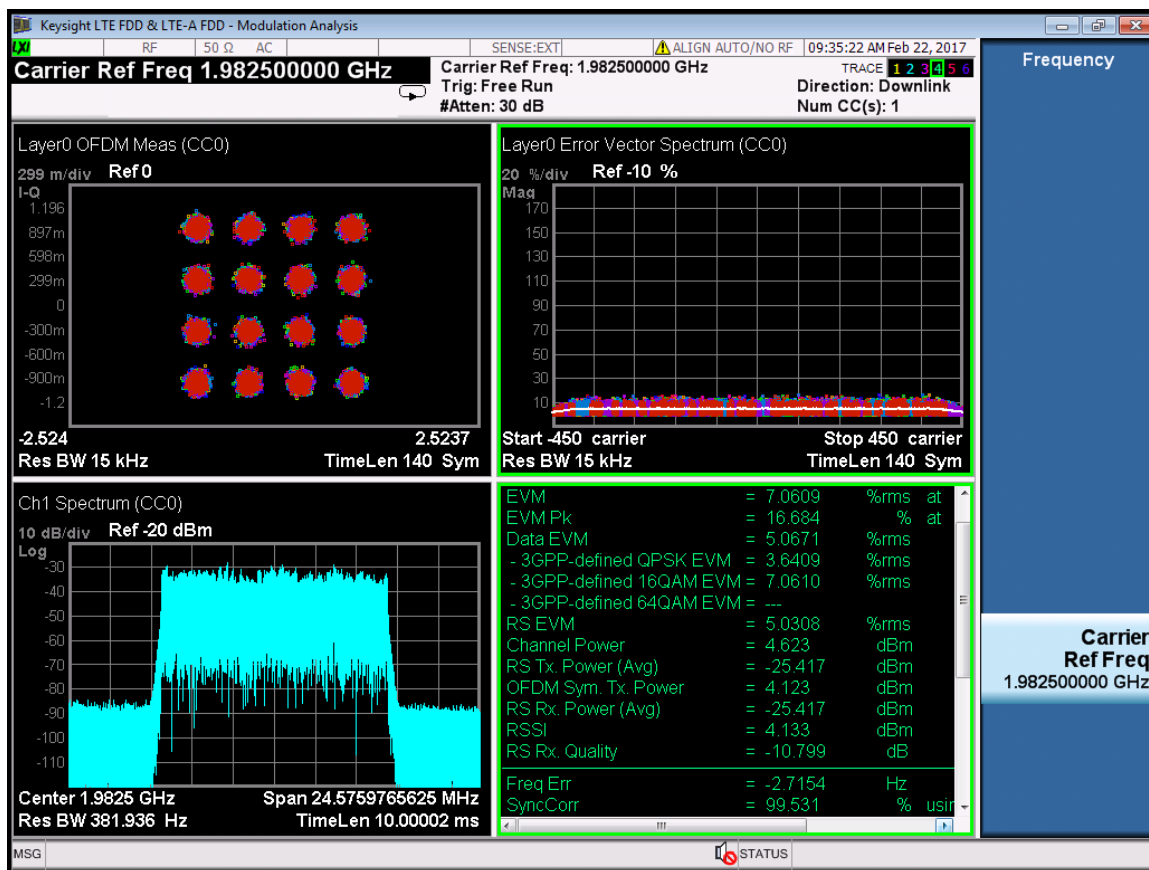
LTE 15M-Port 4-1982.5MHz- E-TM3.1



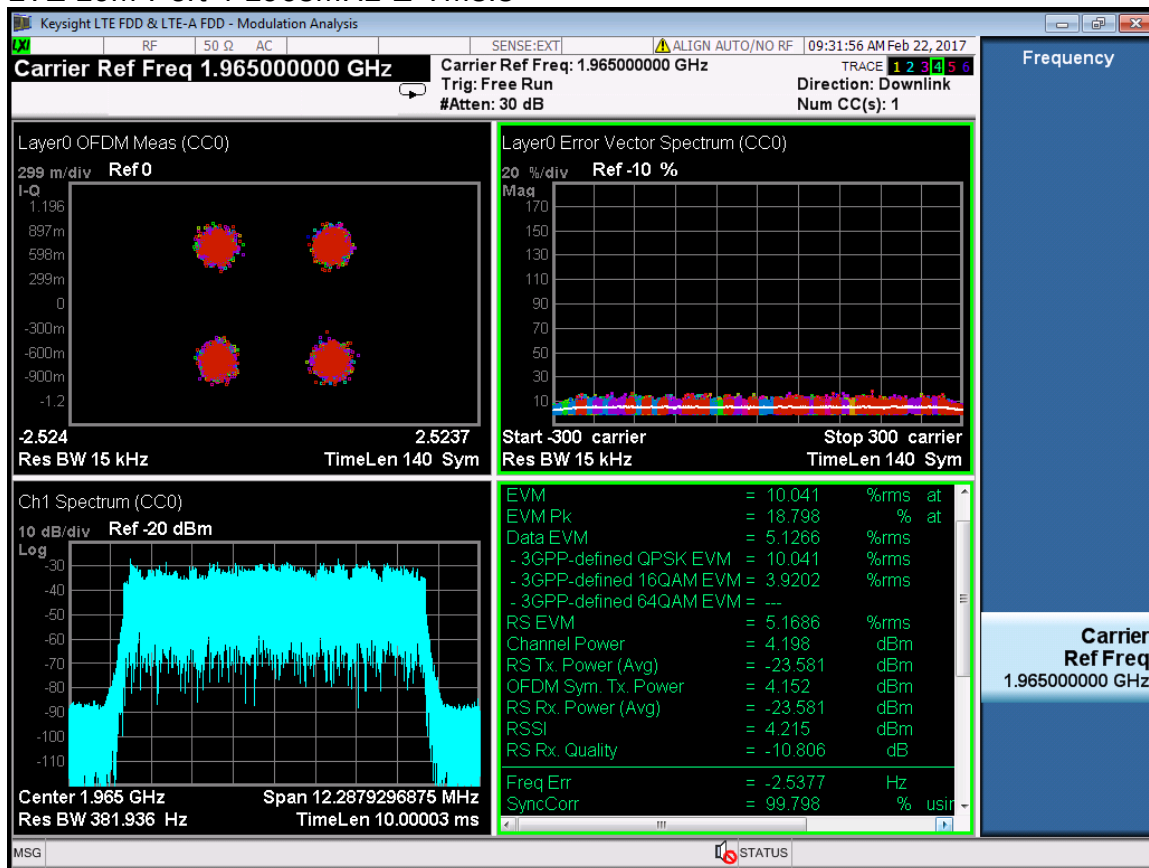
LTE 10M-Port 4-1965MHz-E-TM3.2



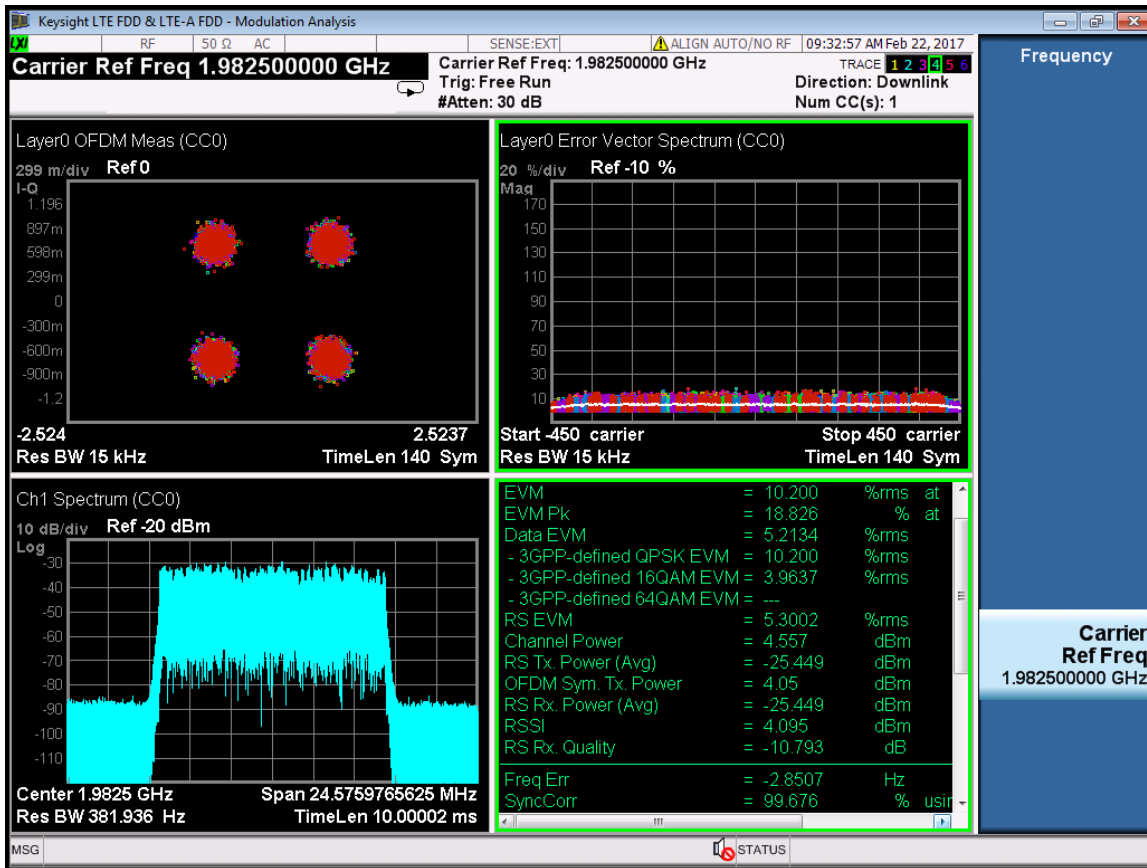
LTE 15M-Port 4-1982.5MHz- E-TM3.2



LTE 10M-Port 4-1965MHz-E-TM3.3



LTE 15M-Port 4-1982.5MHz- E-TM3.3



9 SPURIOUS RADIATED EMISSIONS

9.1 Applicable Standard: FCC CFR 47 §2.1053

9.2 Test Equipment List and Details

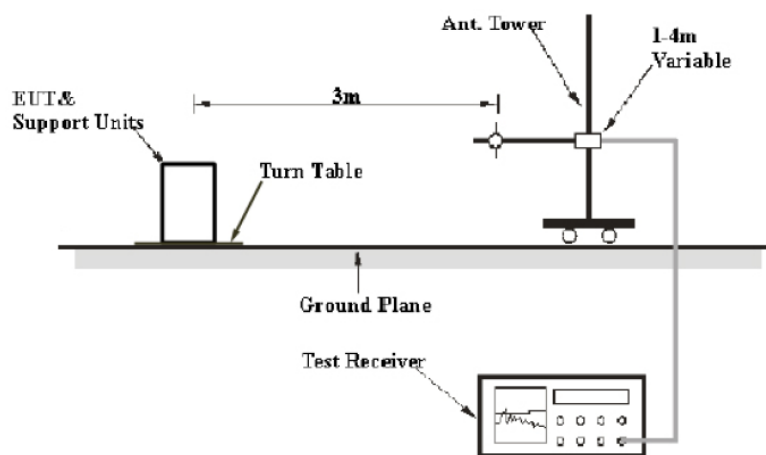
Manufacturer	9.2.1.1.1 Equipment	Model	Serial Number	Last Cal.	Cal. Interval
Albatross	Anechoic Chamber	3m Site	A00017354	2016-11-18	1 year
R&S	EMI Test Receiver	ESI26	100058	2016-8-1	1 year
R&S	Log periodic Antenna	SWB-VUBA9163	9163-282	2016-12-7	1 year
R&S	Double-Ridged Waveguide Horn Antenna	HF906 TX	100032	2016-6-29	1 year

Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of a radiated emissions measurement at the EMC lab. is 3.6dB.

EUT Setup



The radiated emission tests were performed in the 3-meter Chamber, using the setup accordance with the FCC part 2.1053. The specification used was the FCC 2.1053 limits.

9.3 Test Procedure

The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load, which was also placed on the turntable.

The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis.

The frequency range up to teeth harmonic of the fundamental frequency was investigated.

Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.

Spurious emissions in dB =10 lg (TX pwr in Watts/0.001)-the absolute level

Spurious attenuation limit in dB =43+10 Lg P (power out in Watts)

The resolution bandwidth of the spectrum analyzer was set at 1 percent as specified for 30MHz to 1GHz scanning, set at 1MHz for 1GHz to 20GHz scanning.

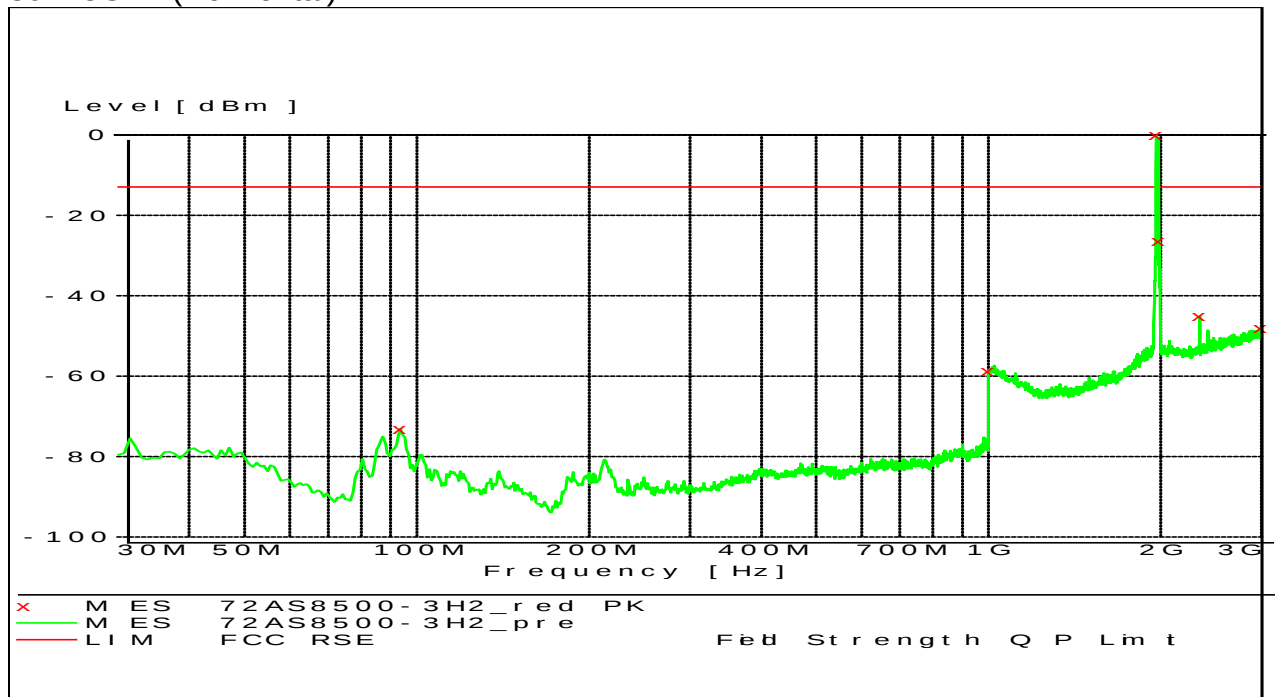
9.4 Test Results Summary: PASS

9.5 Environmental Conditions

Temperature:	26°C
Relative Humidity:	60 %
ATM Pressure:	1009 mbar

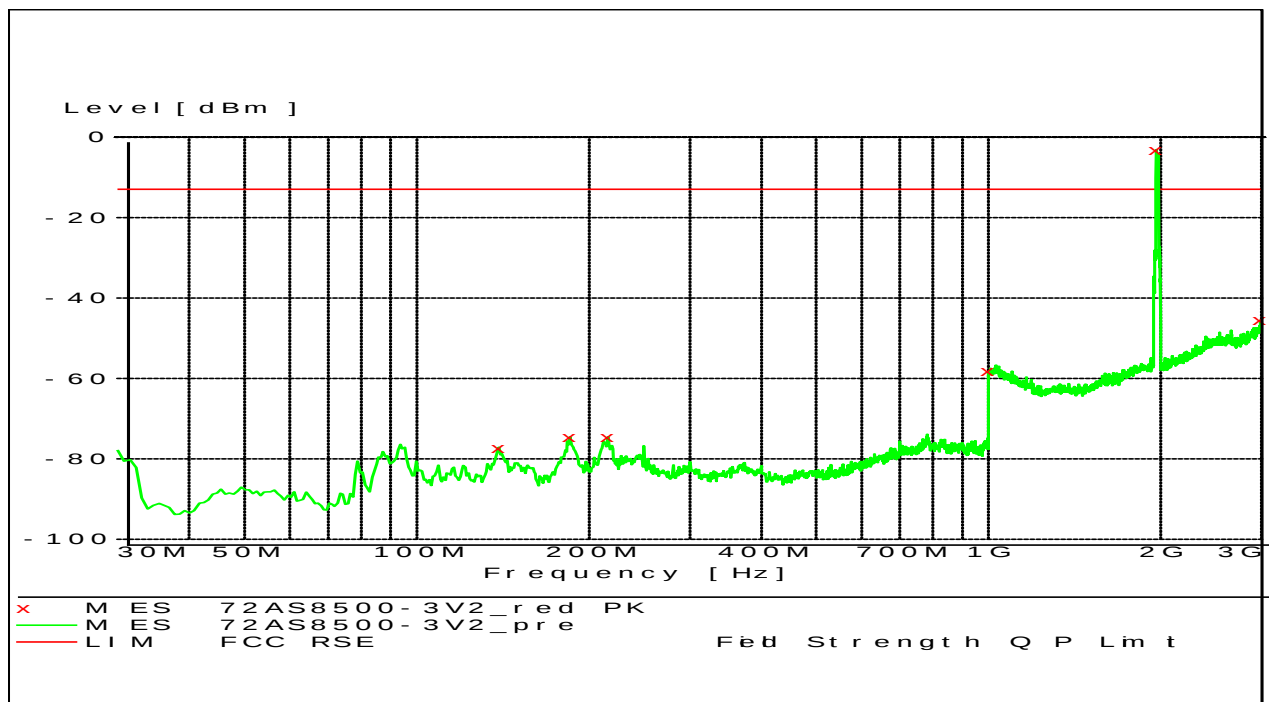
9.6 Test data

30M-3GHz (Horizontal)



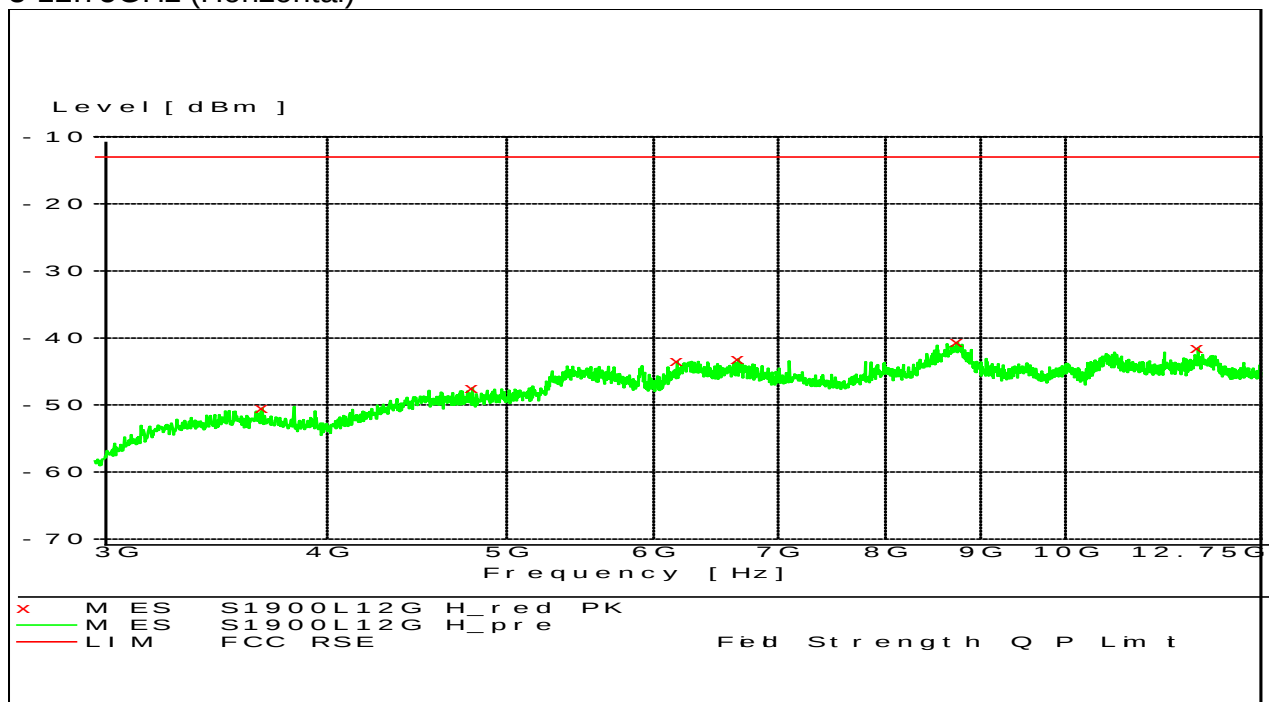
Frequency (MHz)	Level (dBm)	Azimuth (deg)	Height (cm)	Polarisation	Transd (dB)	Limit (dBm)	Margin (dB)
93.632	-72.97	143.1	200	HOR	-129.2	-13	60
1000	-58.62	143.1	200	HOR	-109.1	-13	45.6
1984	-26.3	319.9	200	HOR	-103.4	-13	13.3
2339.2	-45.06	84.4	100	HOR	-103.6	-13	32.1
2995.2	-47.98	154.1	200	HOR	-98.6	-13	35

30M-3GHz (Vertical)



Frequency (MHz)	Level (dBm)	Azimuth (deg)	Height (cm)	Polarisation	Transd (dB)	Limit (dBm)	Margin (dB)
185.2	-74.53	69	100	VER	-131.4	-13	61.5
216.24	-74.53	335	100	VER	-127.1	-13	61.5
139.416	-77.14	56.2	200	VER	-36	-13	67.1
1000	-58.27	56.2	200	VER	-108.9	-13	45.3
2987.2	-45.55	247.9	200	VER	-97.1	-13	32.5

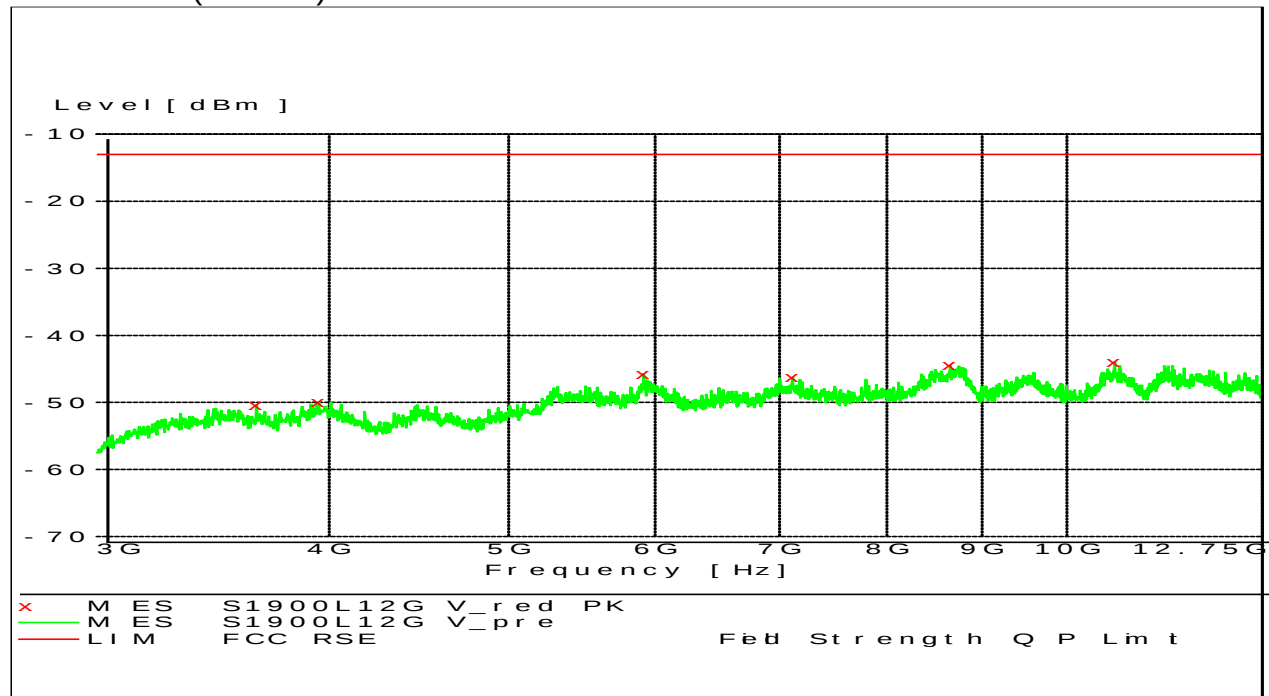
3-12.75GHz (Horizontal)





Frequency (MHz)	Level (dBm)	Azimuth (deg)	Height (cm)	Polarisation	Transd (dB)	Limit (dBm)	Margin (dB)
3691.2	-50.45	359.9	200	HOR	-89	-13	37.5
4792	-47.4	57.6	100	HOR	-84.4	-13	34.4
6177.6	-43.52	168.5	100	HOR	-78.2	-13	30.5
6667.2	-43.15	359.9	200	HOR	-77.6	-13	30.1
8752.6	-40.62	37.2	200	HOR	-72.4	-13	27.6
11793.2	-41.48	286.2	100	HOR	-72.7	-13	28.5

3-12.75GHz (Vertical)



Frequency (MHz)	Level (dBm)	Azimuth (deg)	Height (cm)	Polarisation	Transd (dB)	Limit (dBm)	Margin (dB)
3656	-50.31	191	100	VER	-89.5	-13	37.3
3950.4	-49.88	163.1	100	VER	-87.7	-13	36.9
5915.2	-45.7	359.1	100	VER	-81.9	-13	32.7
7115	-46.28	1.4	200	VER	-80.5	-13	33.3
8656	-44.44	315.5	100	VER	-76.6	-13	31.4
10611	-43.97	357	200	VER	-76	-13	31

10 SPURIOUS EMISSIONS AT ANTENNA TERMINALS

10.1 Applicable Standard: FCC§2.1051, §24.238

The spectrum was to be investigated to the tenth harmonics of the highest fundamental frequency as specified.

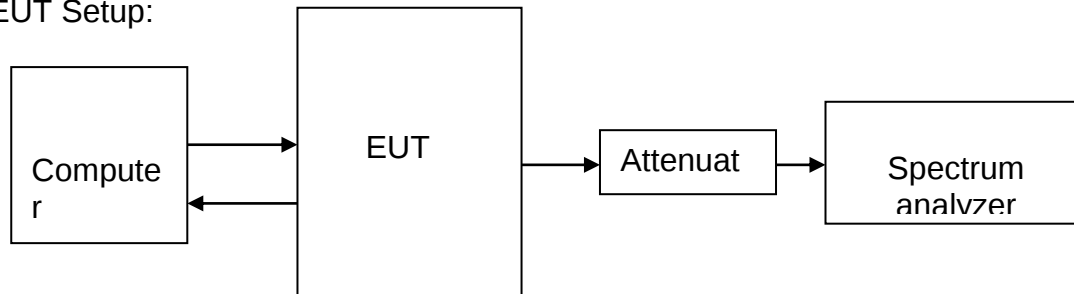
10.2 Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Agilent	MXA Series Spectrum Analyzer	N9030A	MY49431143	2016.09.12	2017.09.12
DTS	DTS 40dB Attenuator	DTS100-40-3-1	09112005	2016.09.12	2017.09.12

***statement of traceability:** ZTE Corporation Reliability Testing Center attest that all calibration have been performed per the NVLAP requirements, traceable to NIST.

10.3 Test Procedure

EUT Setup:



REMARKS: Attenuator loss (dB)=40dB, Cable Loss (dB)=1.5dB.

The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed. Sufficient scans were taken to show any out of band emissions up to 10th harmonic.

10.4 Test Data Environmental Conditions

Temperature:	20 °C
Relative Humidity:	53 %
ATM Pressure:	1009 mbar

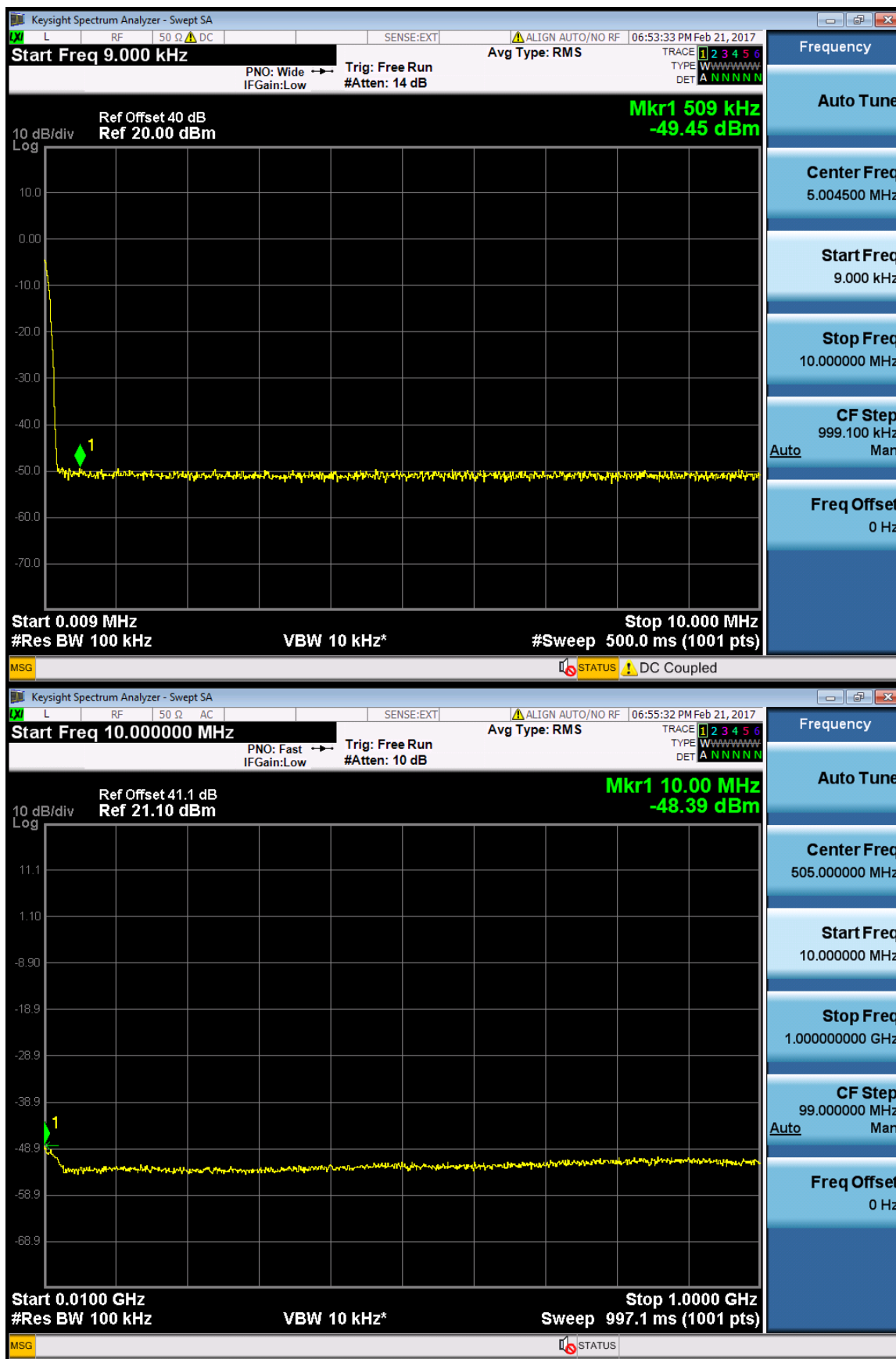
10.5 Test Result: Pass

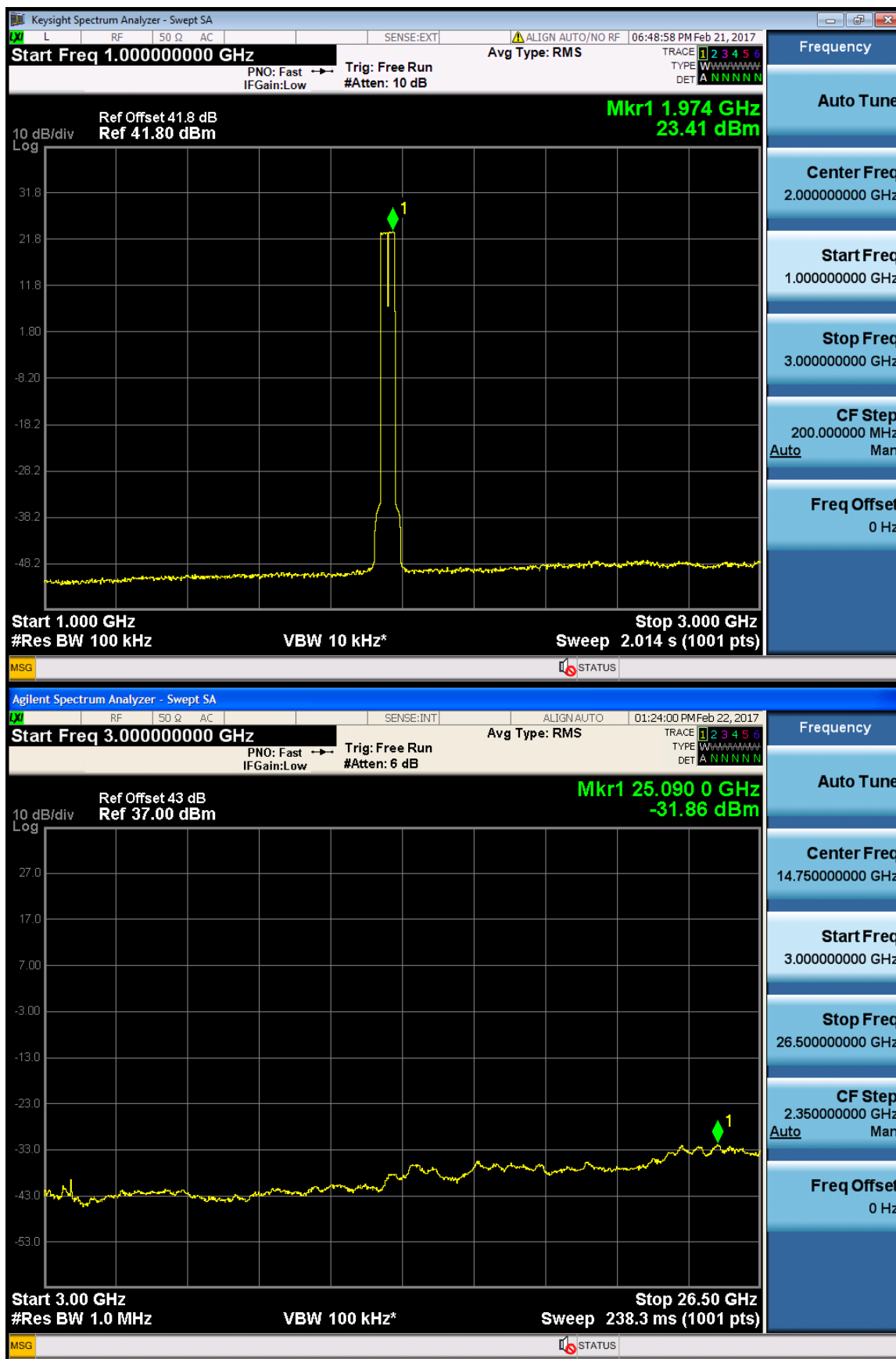
10.6 Test Mode: Transmitting LTE

10.7 Test Data

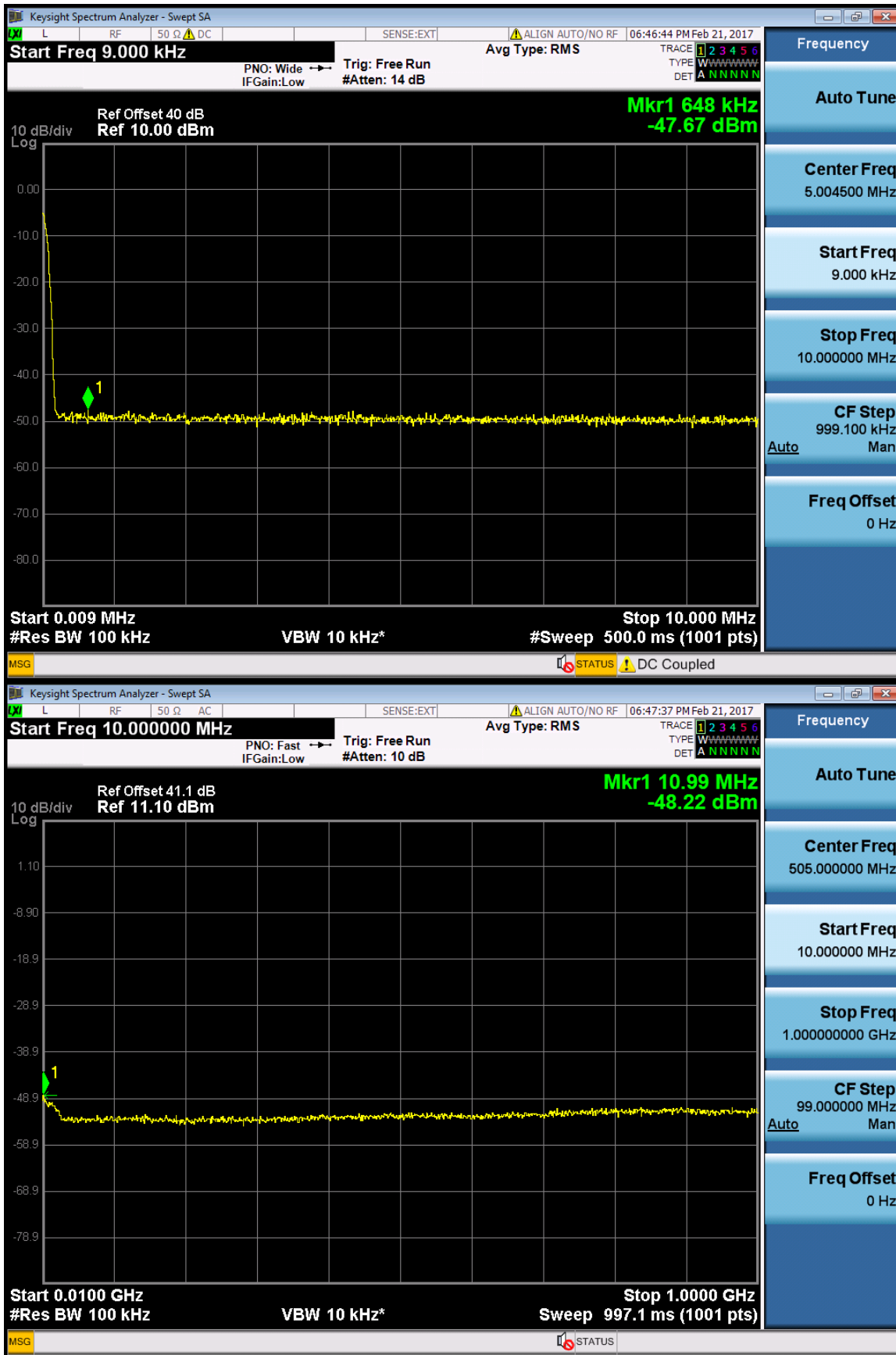
RF 40M (LTE 20M+LTE 20M):

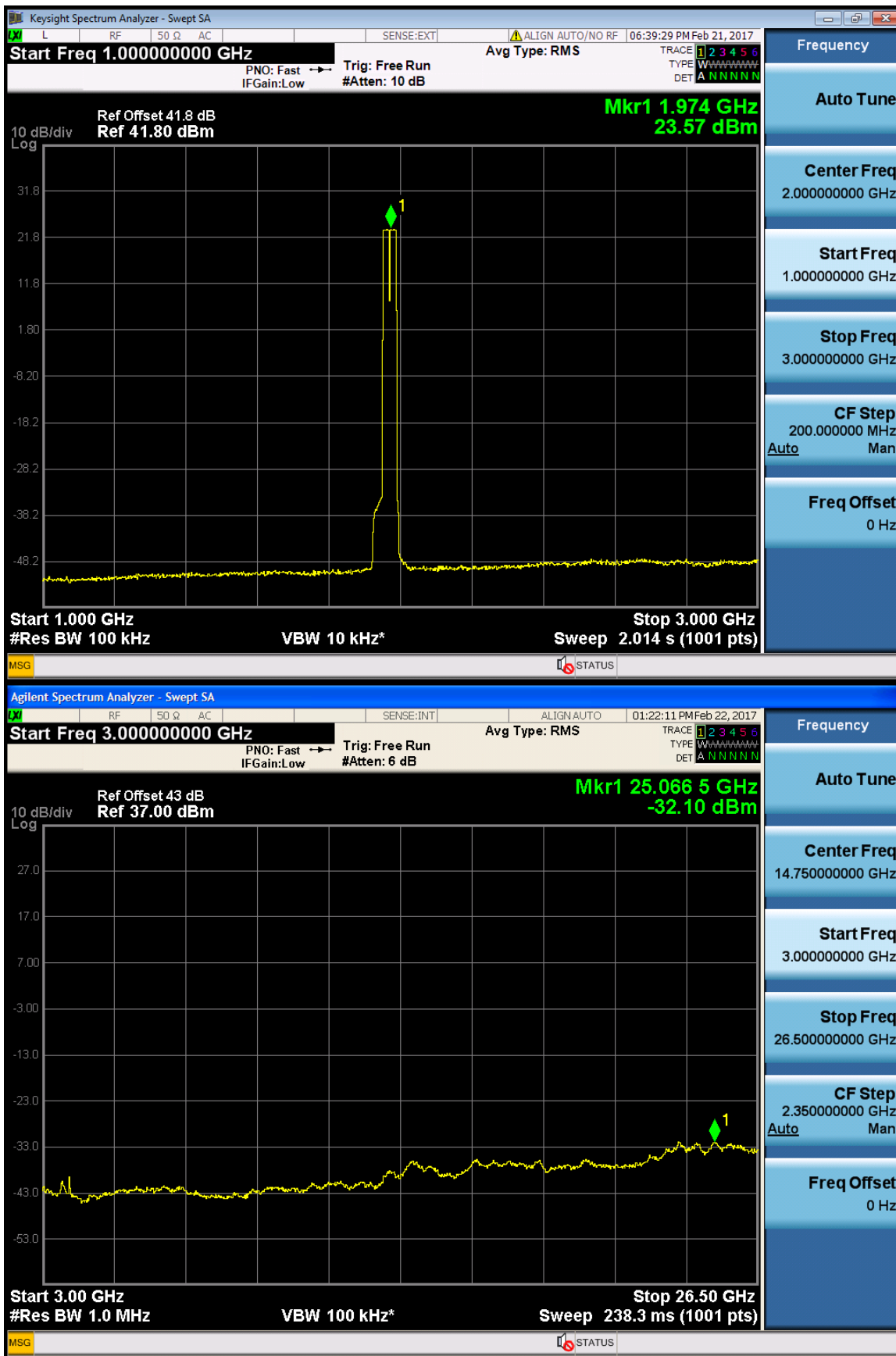
RF 40M (LTE 20M+LTE 20M) -Port 1 -1950MHz



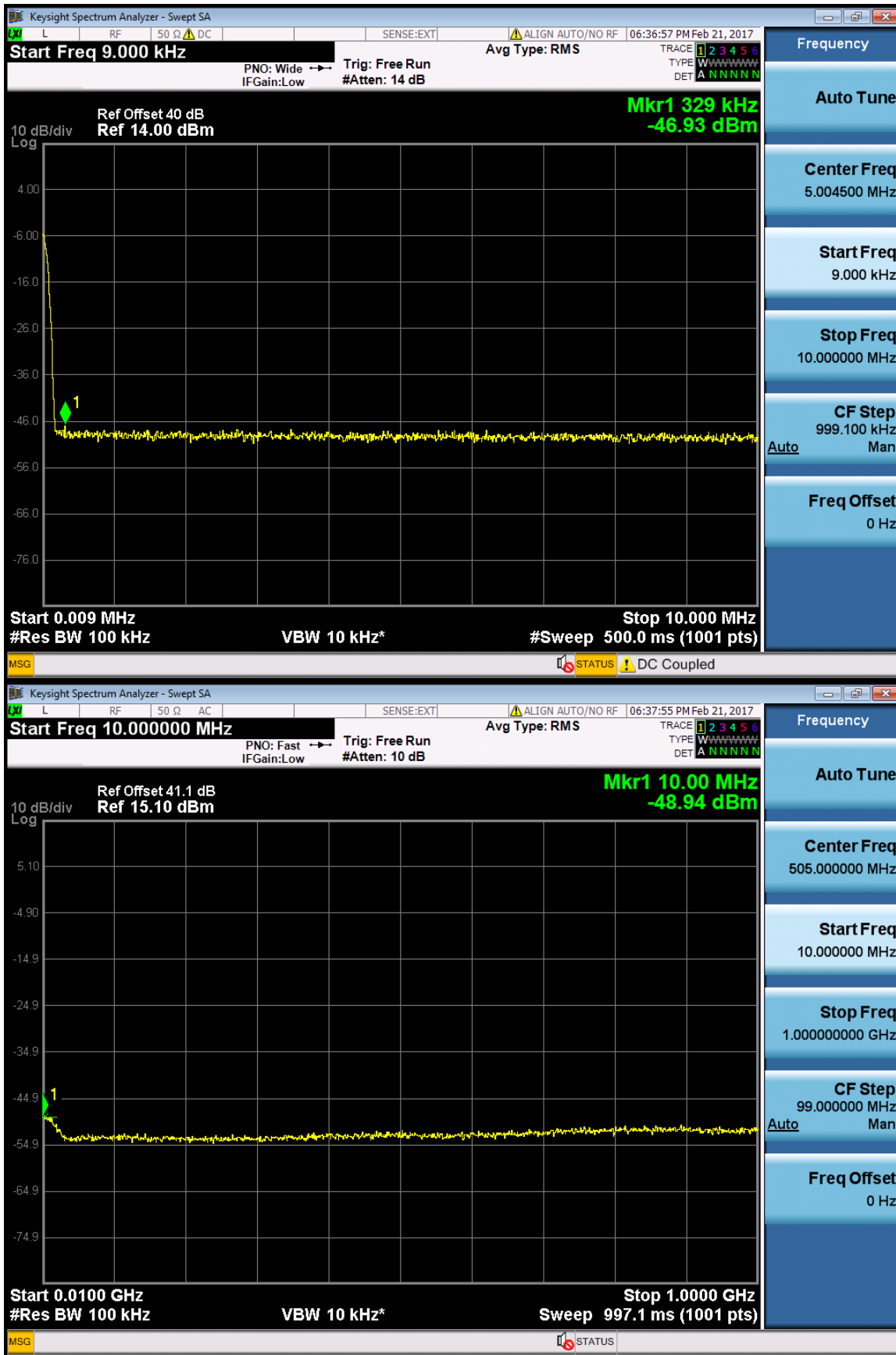


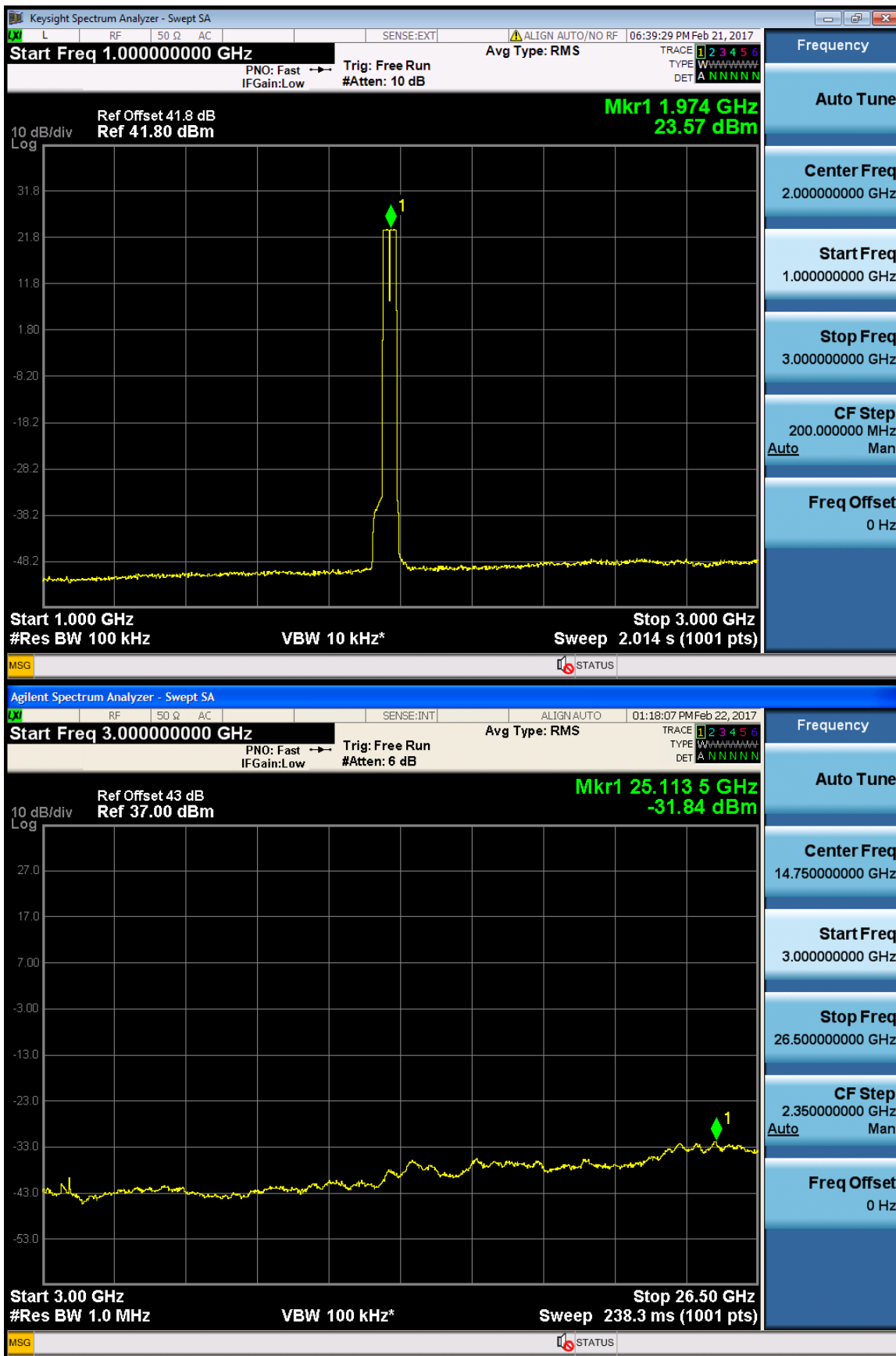
RF 40M (LTE 20M+LTE 20M) -Port 1 -1960MHz



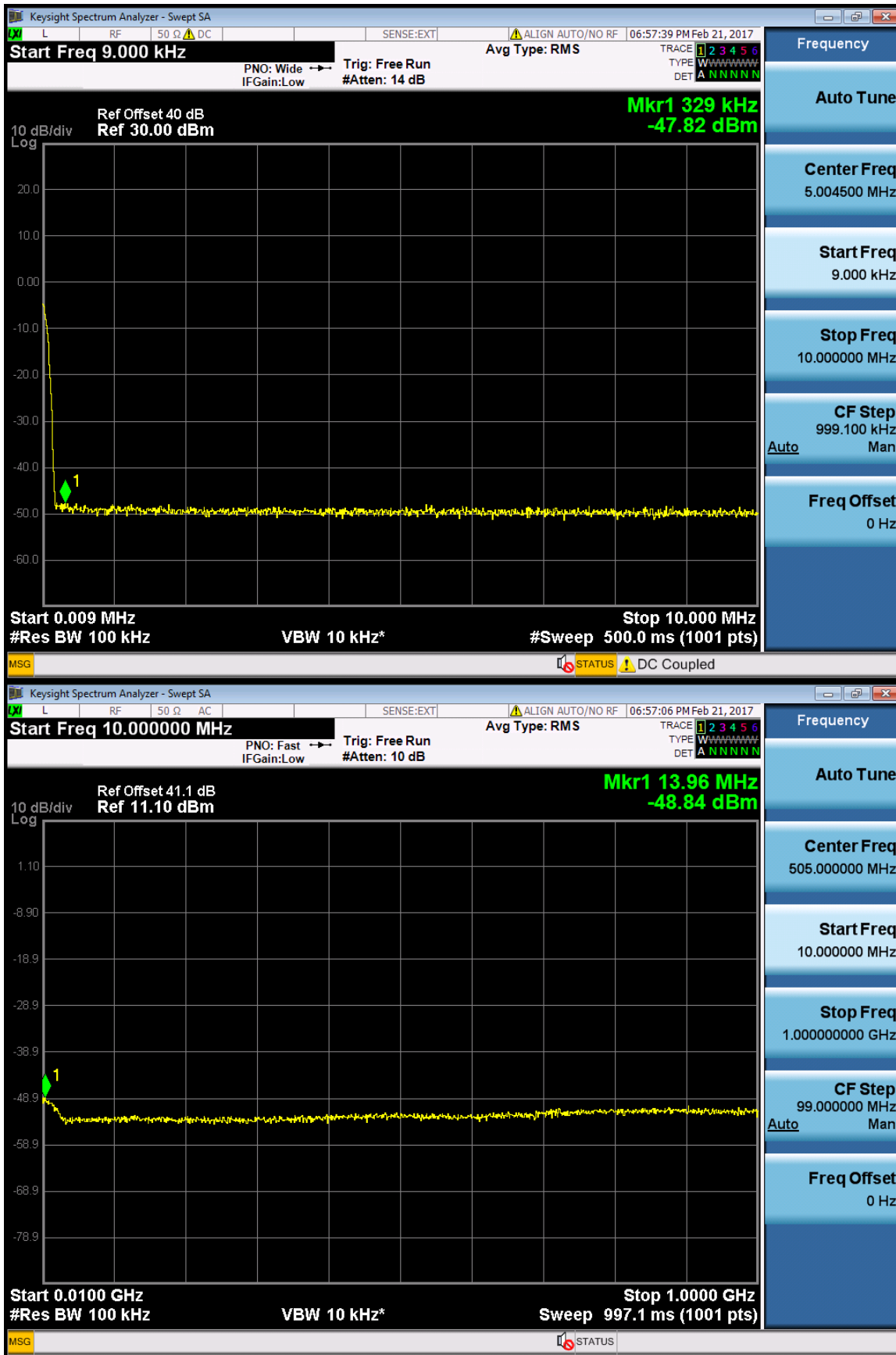


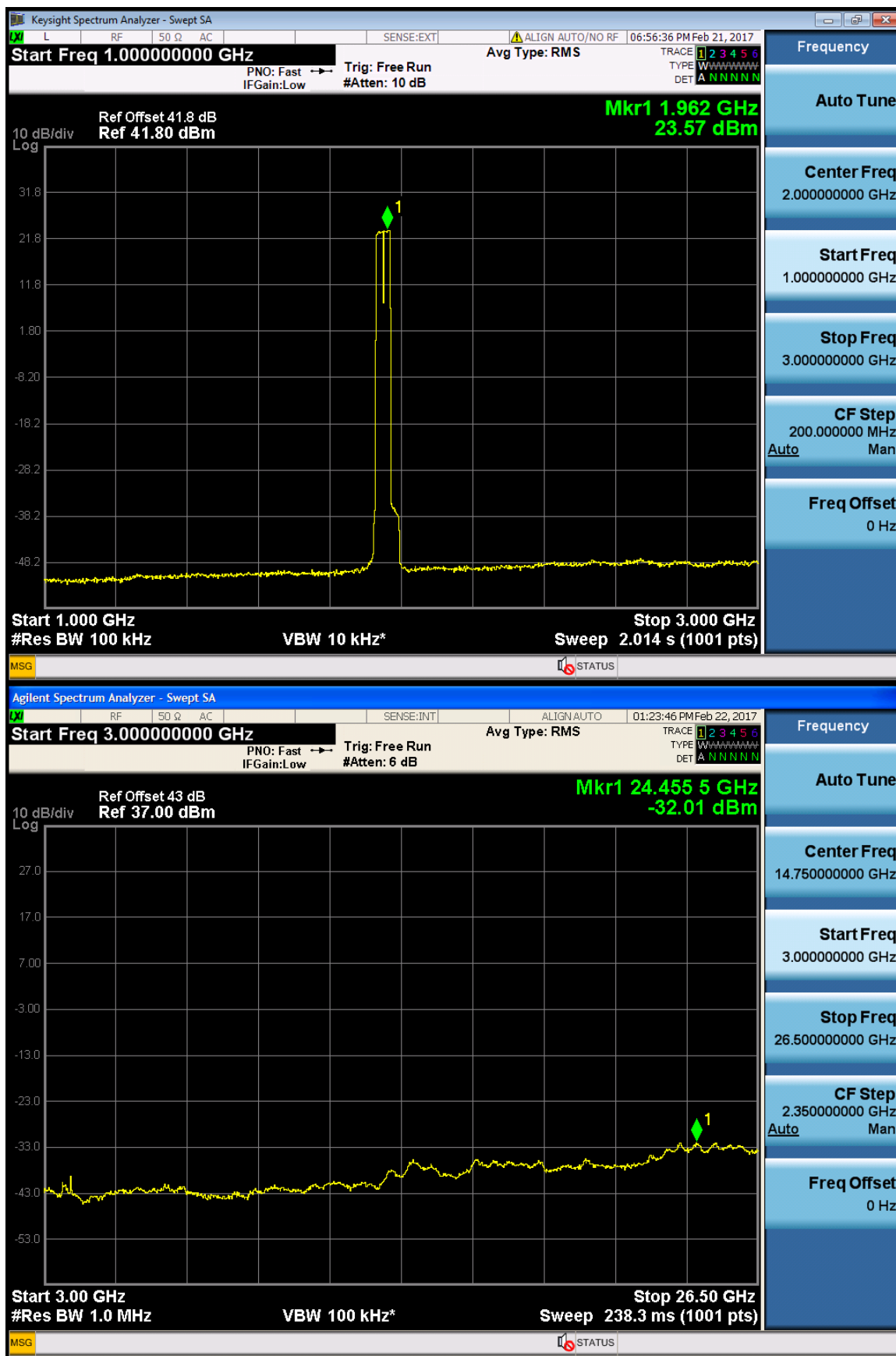
RF 40M (LTE 20M+LTE 20M) -Port 1 -1970MHz



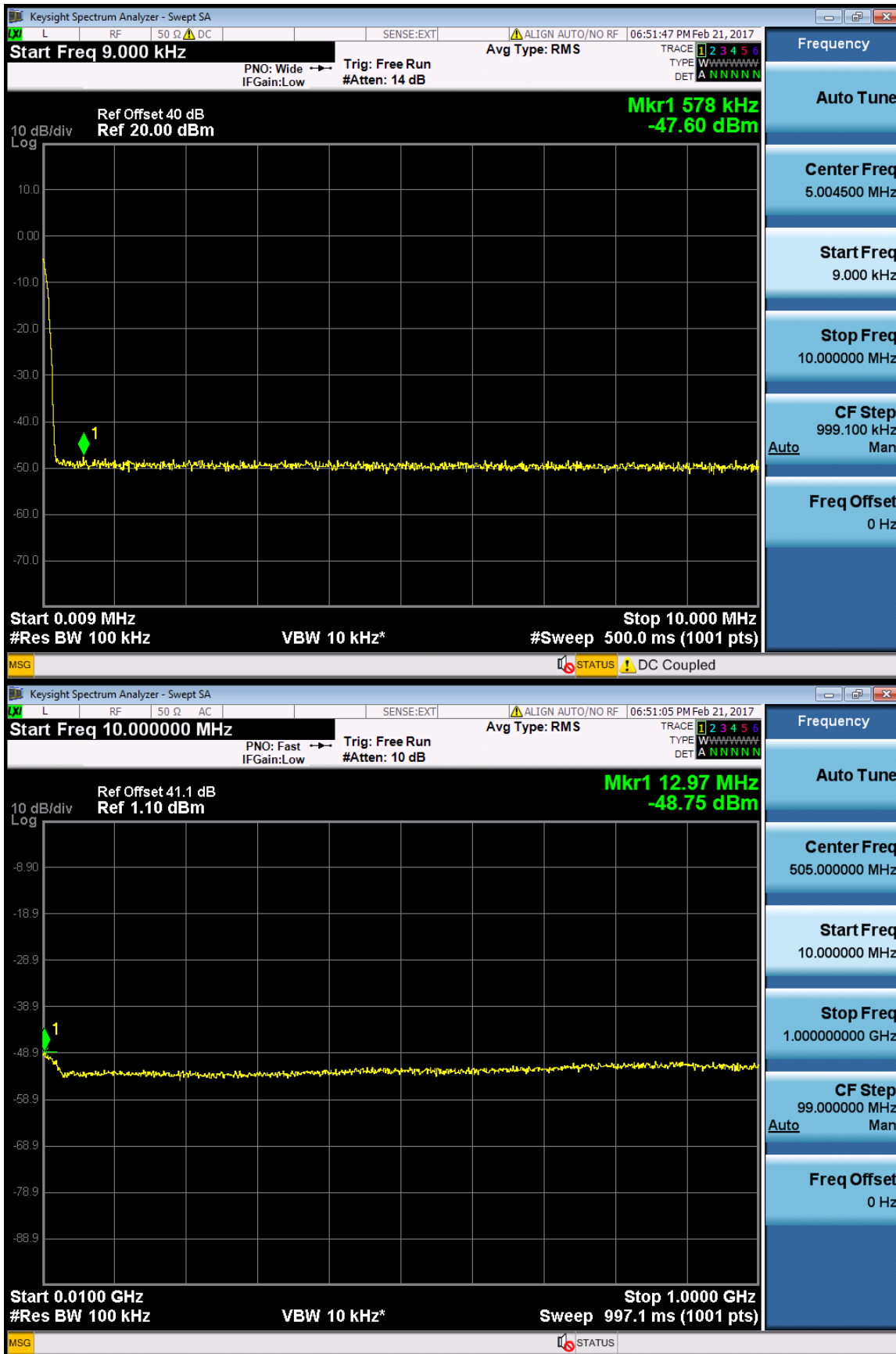


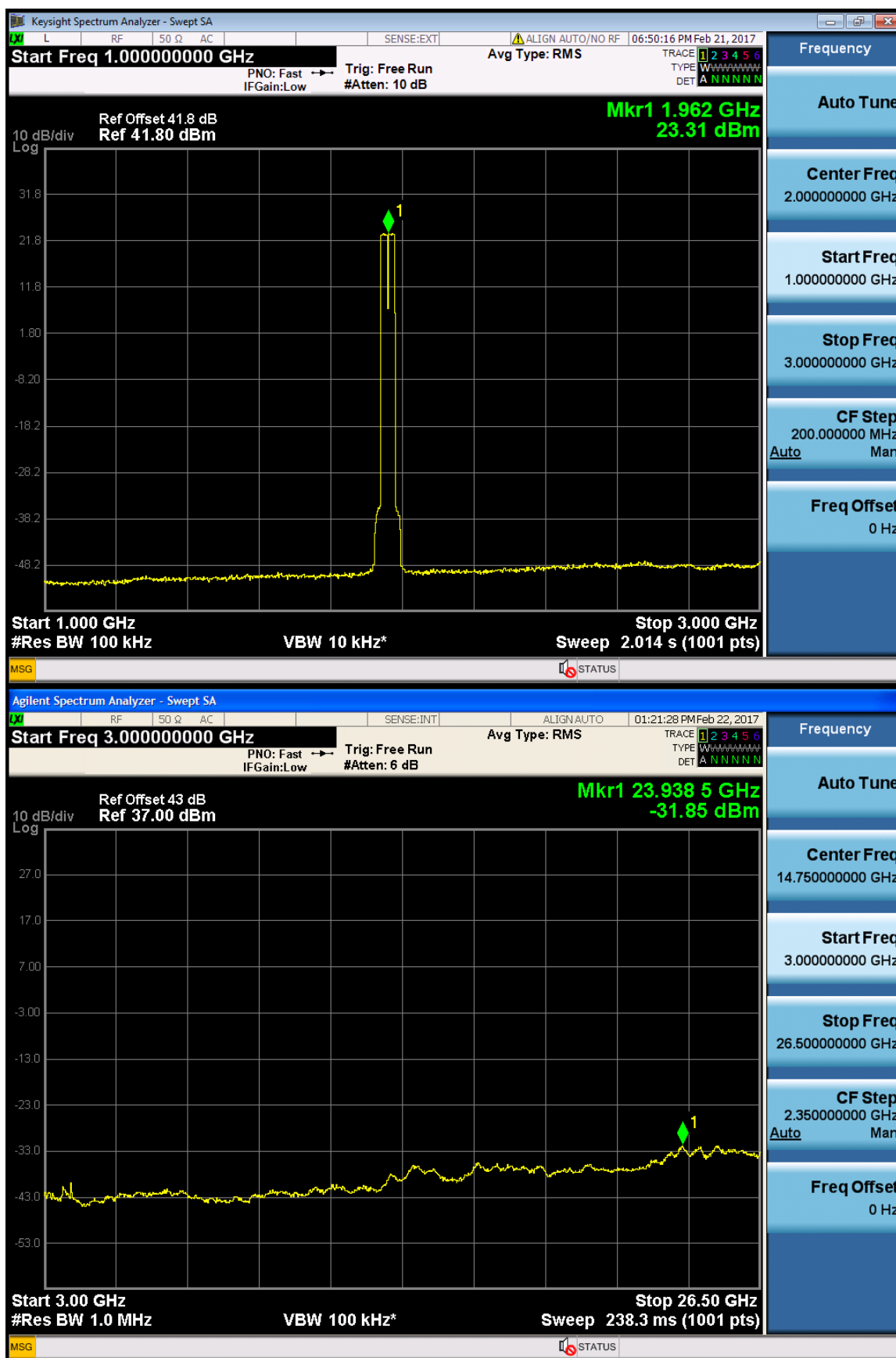
RF 40M (LTE 20M+LTE 20M) -Port 4 -1950MHz



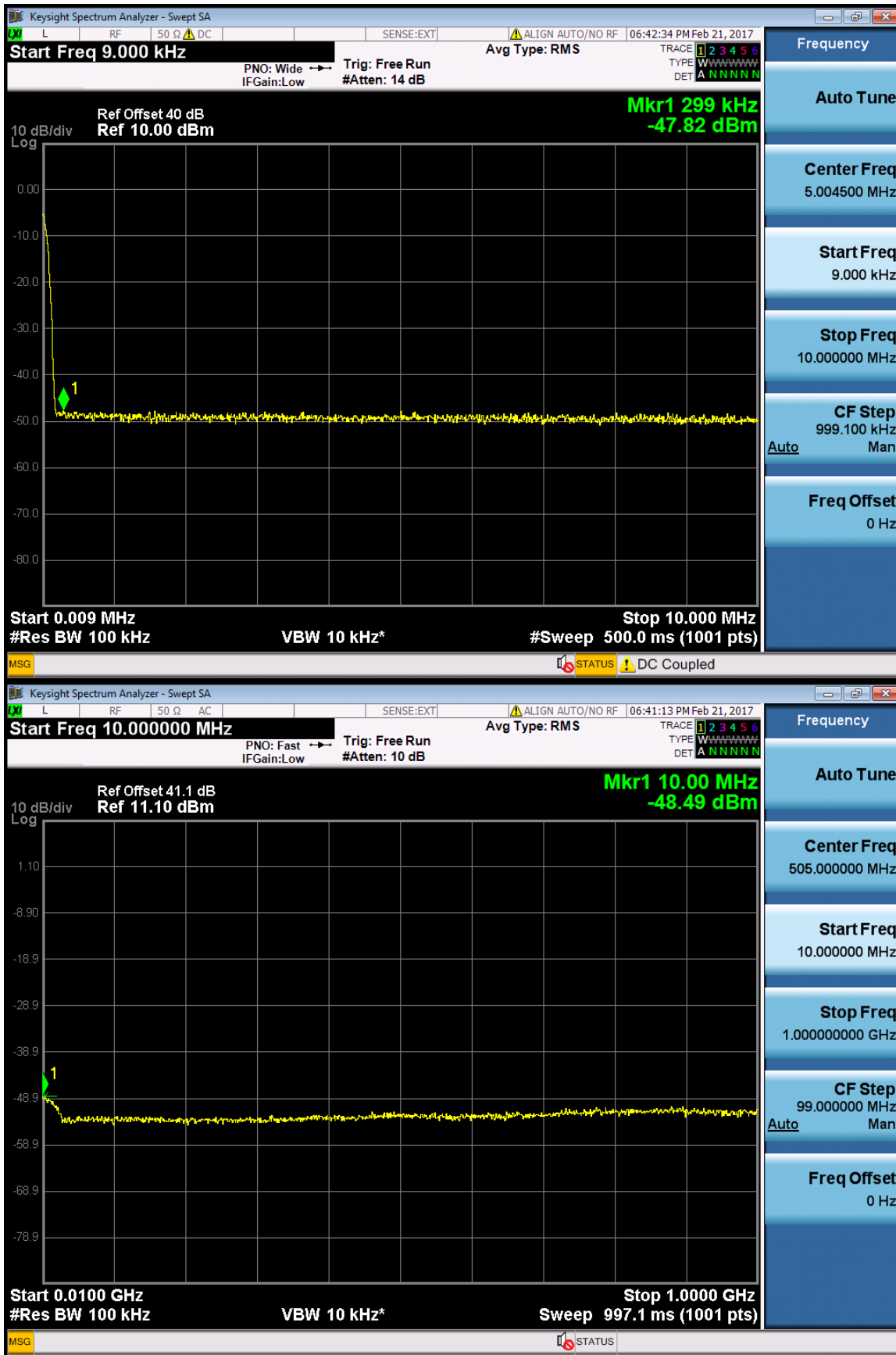


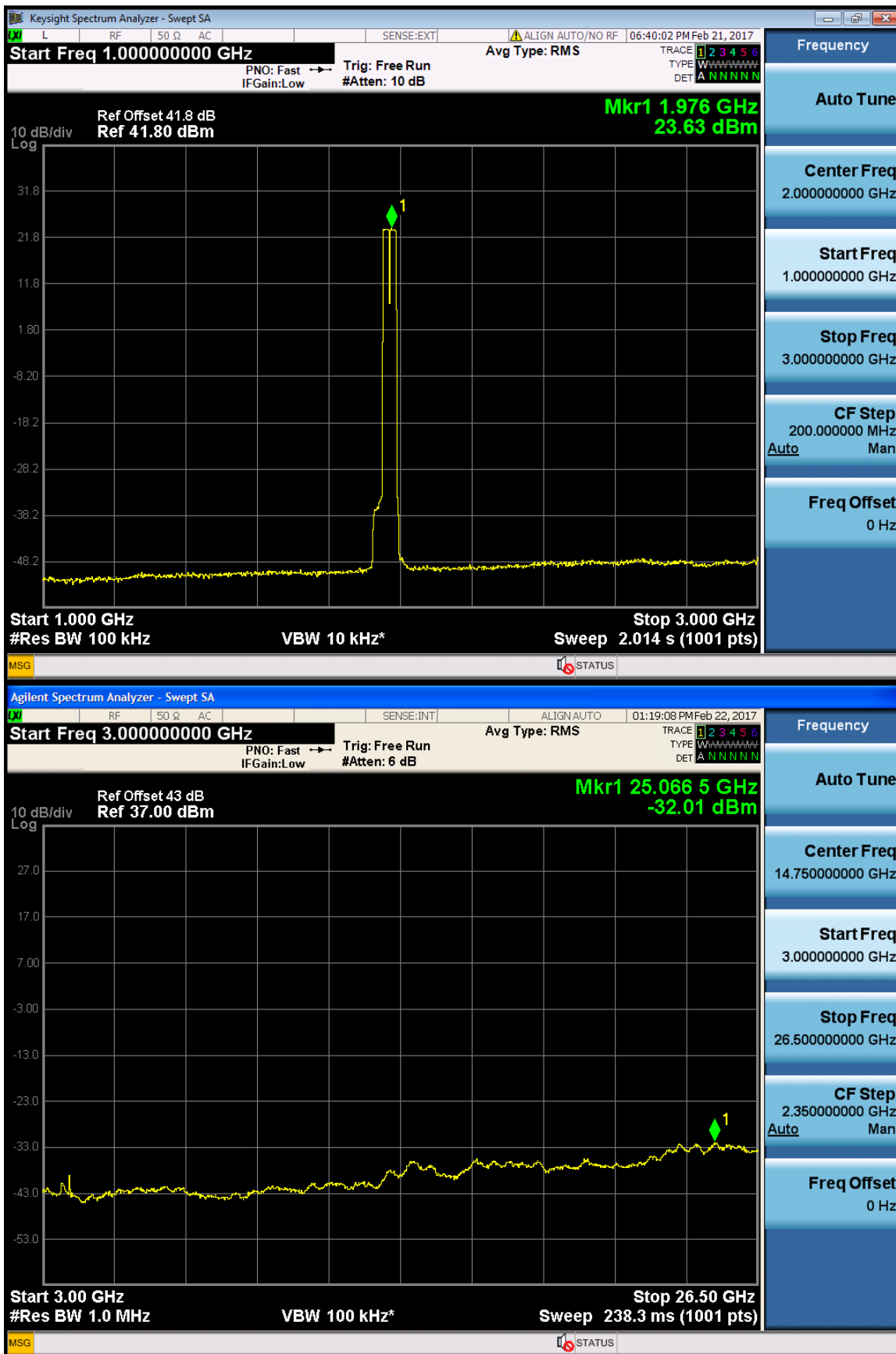
RF 40M (LTE 20M+LTE 20M) -Port 4 -1960MHz





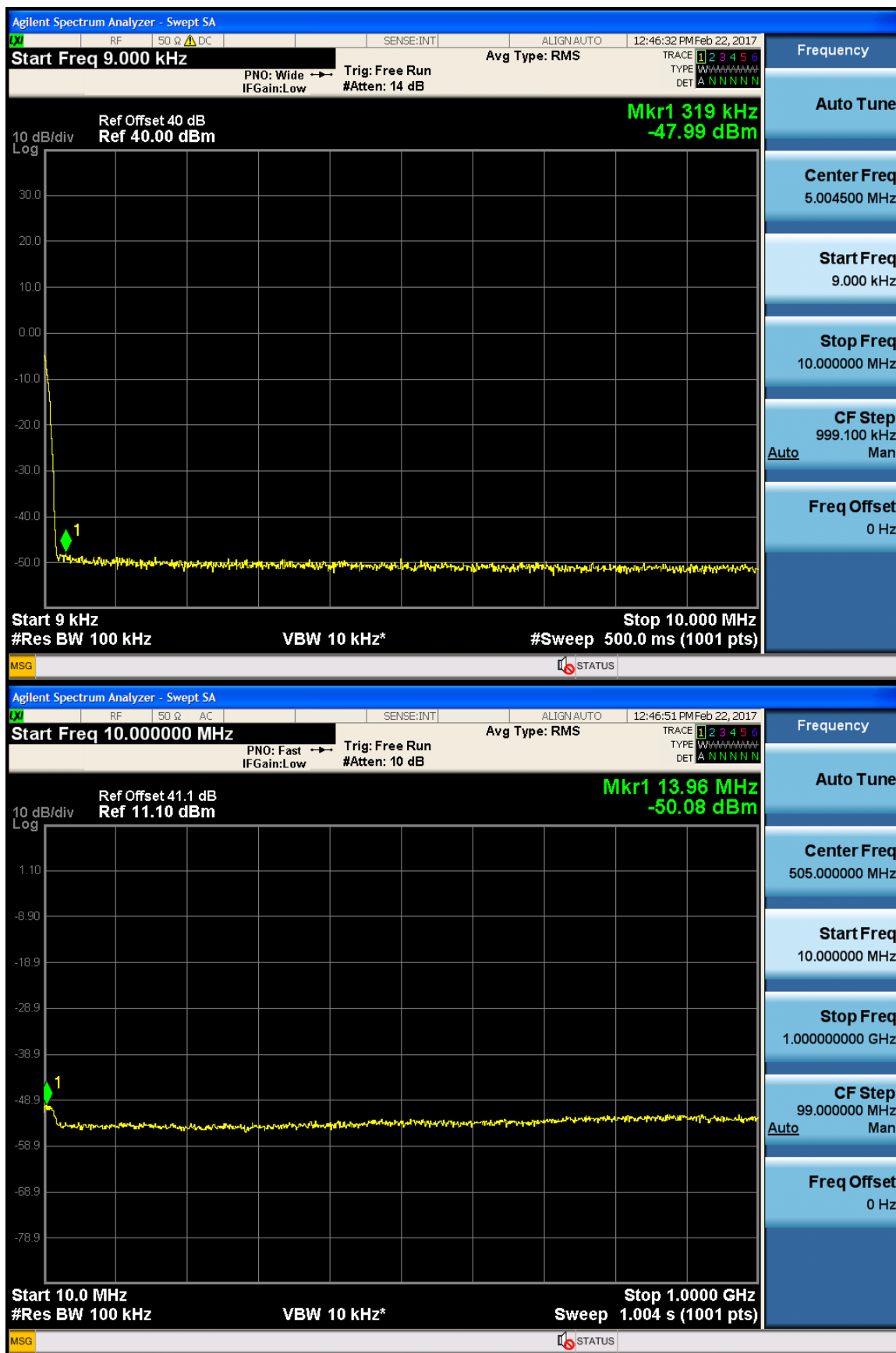
RF 40M (LTE 20M+LTE 20M) -Port 4 -1970MHz

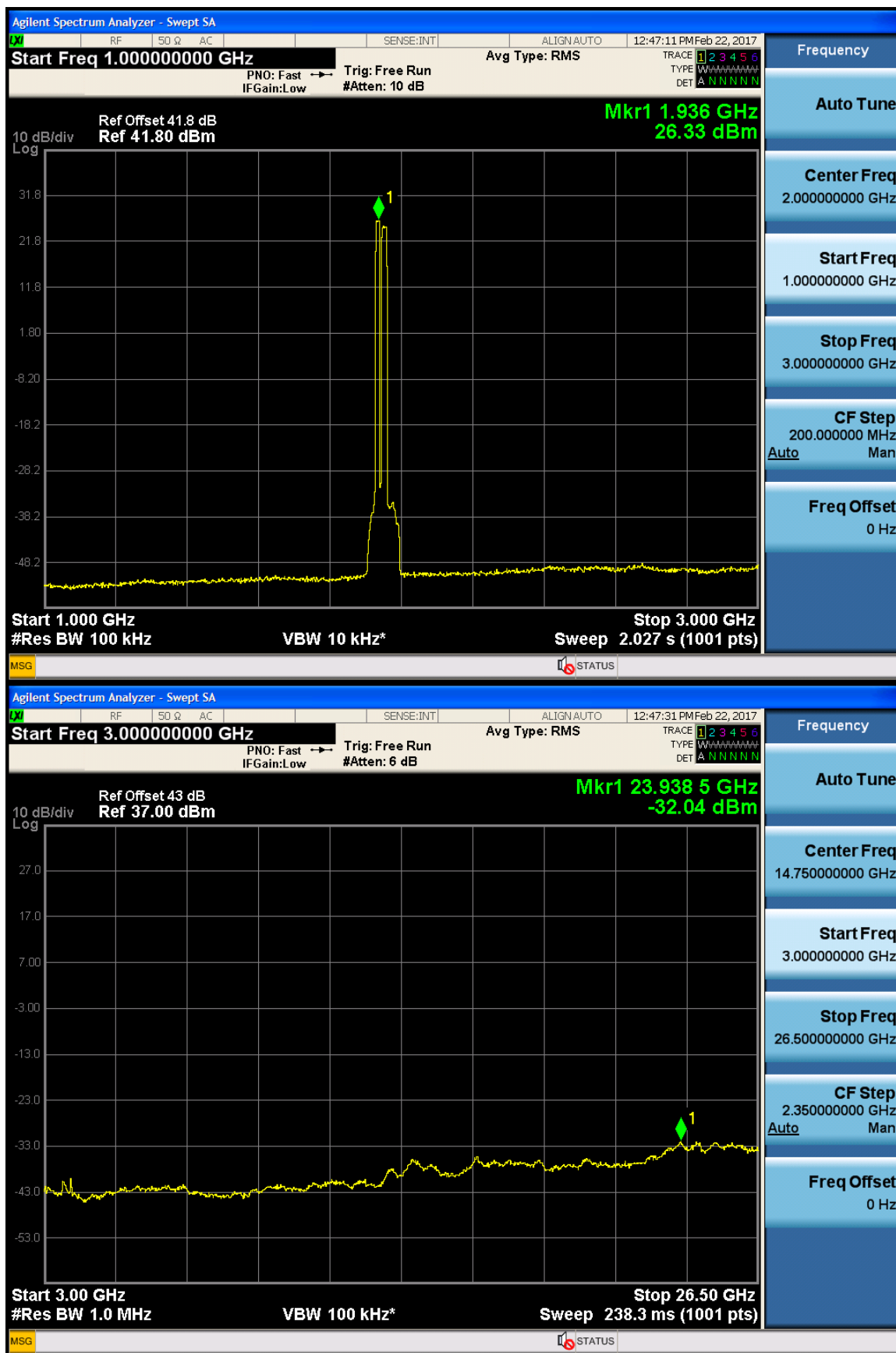




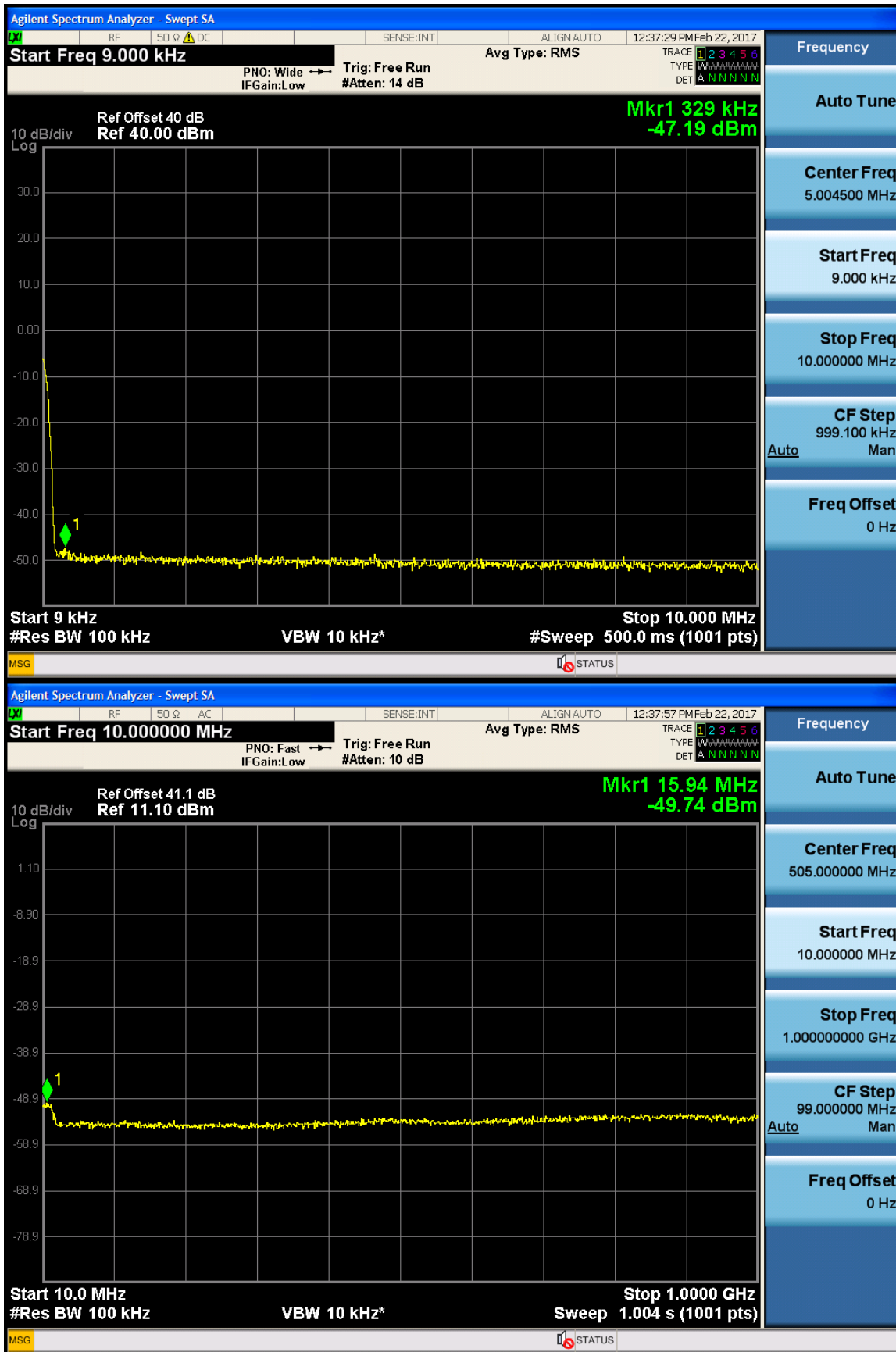
RF 30M (LTE 10M+LTE 15M):

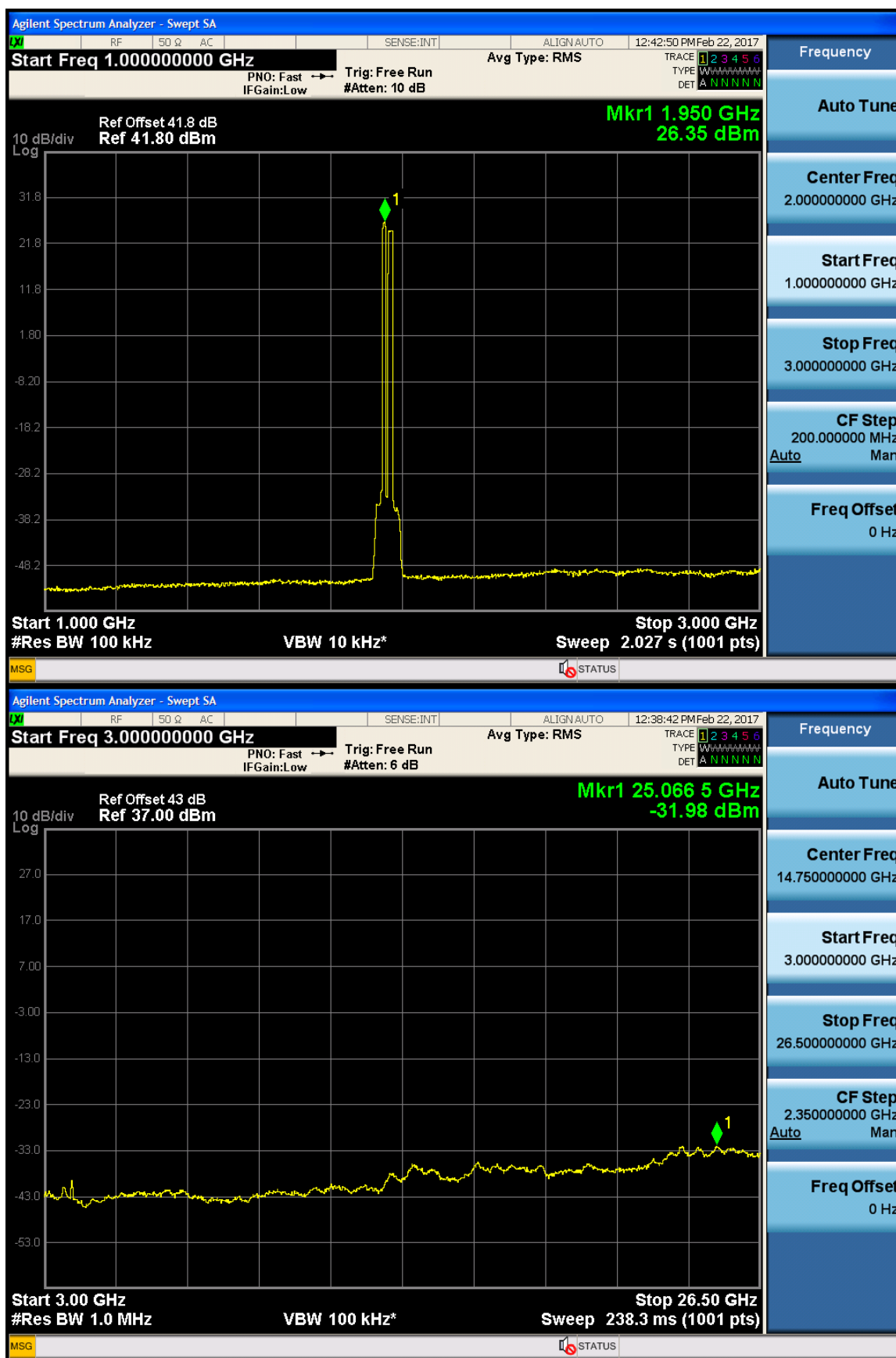
RF 30M (LTE 10M+LTE 15M) -Port 1 -1945MHz



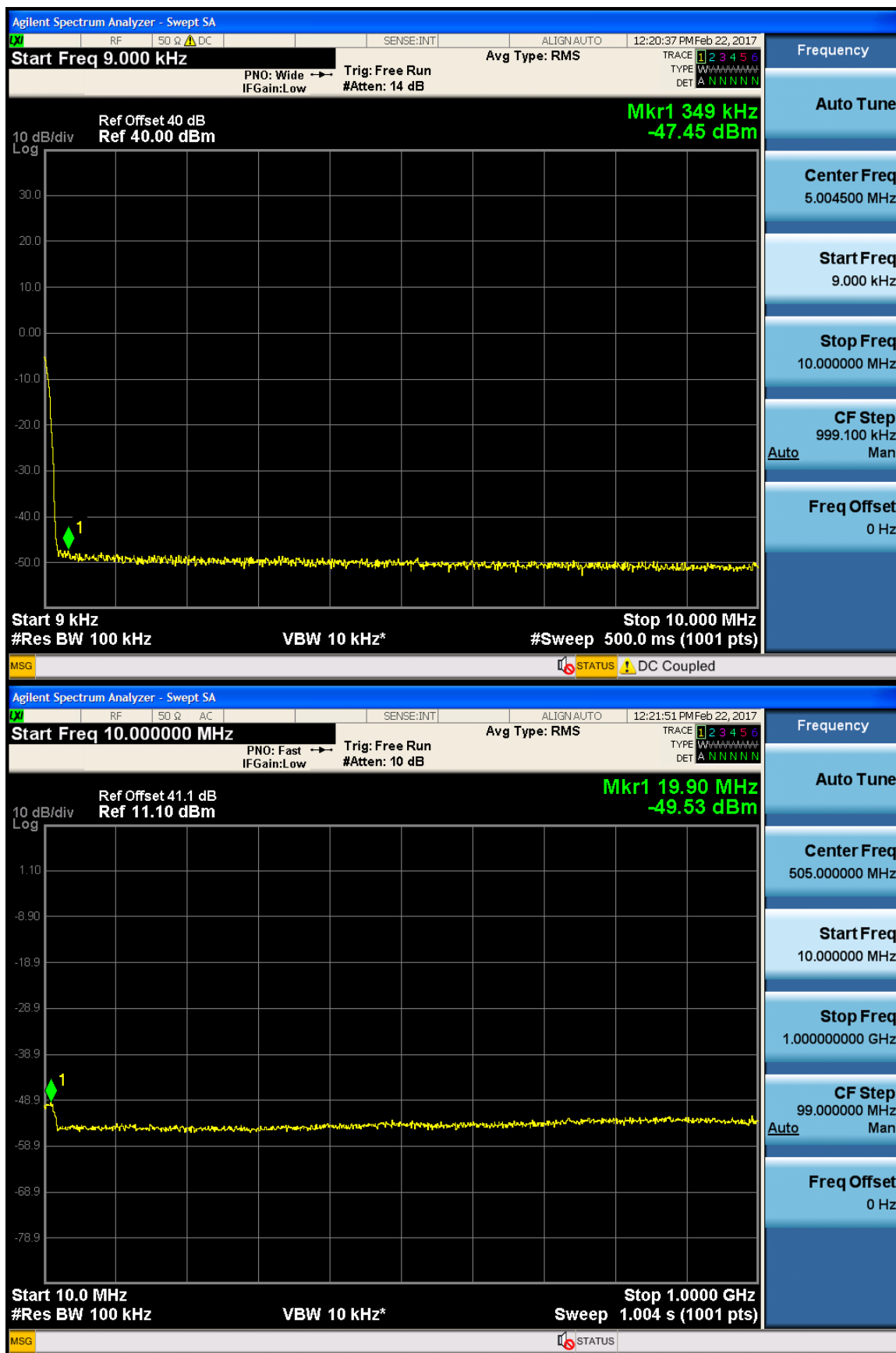


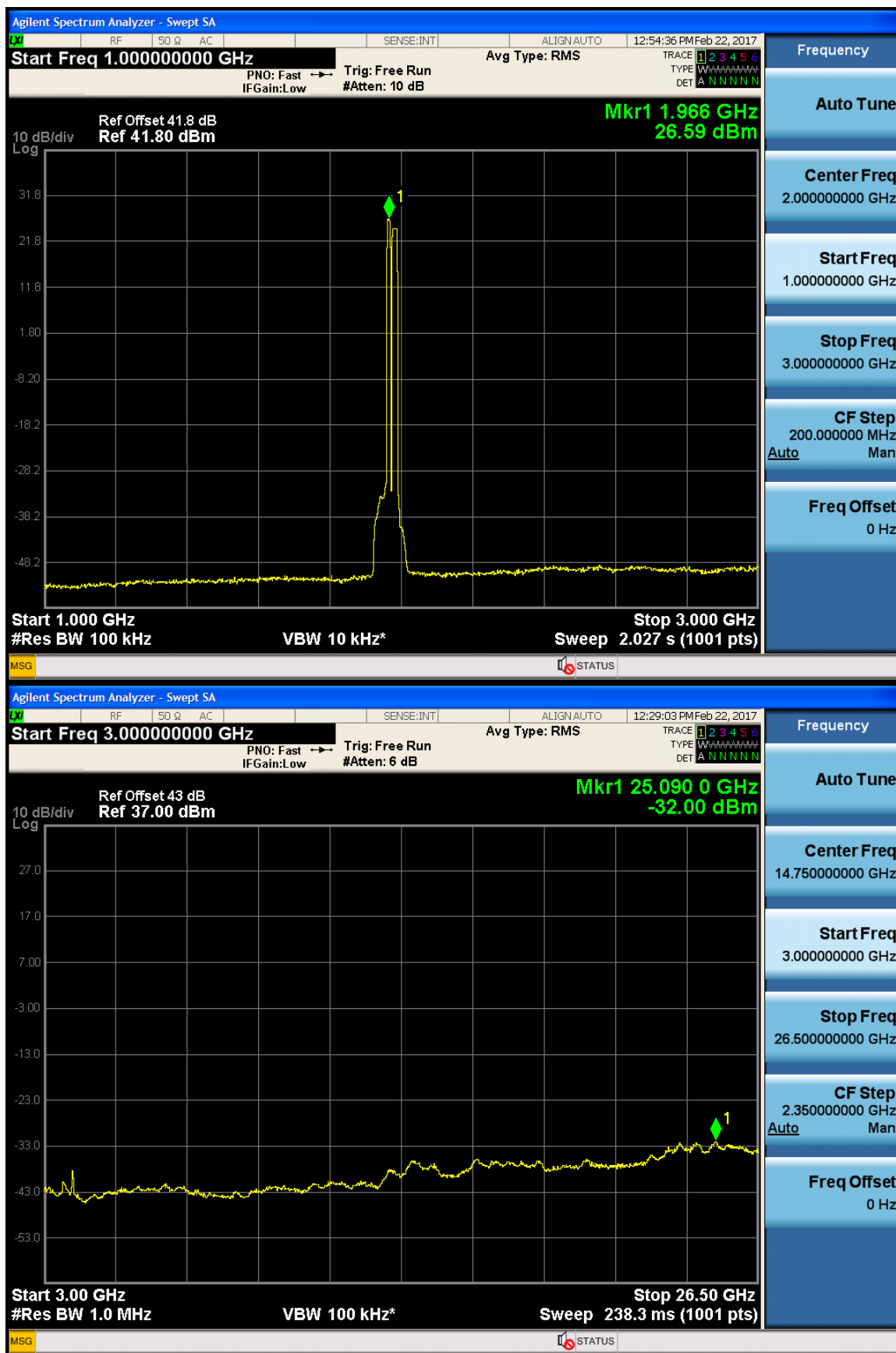
RF 30M (LTE 10M+LTE 15M) -Port 1 -1960MHz



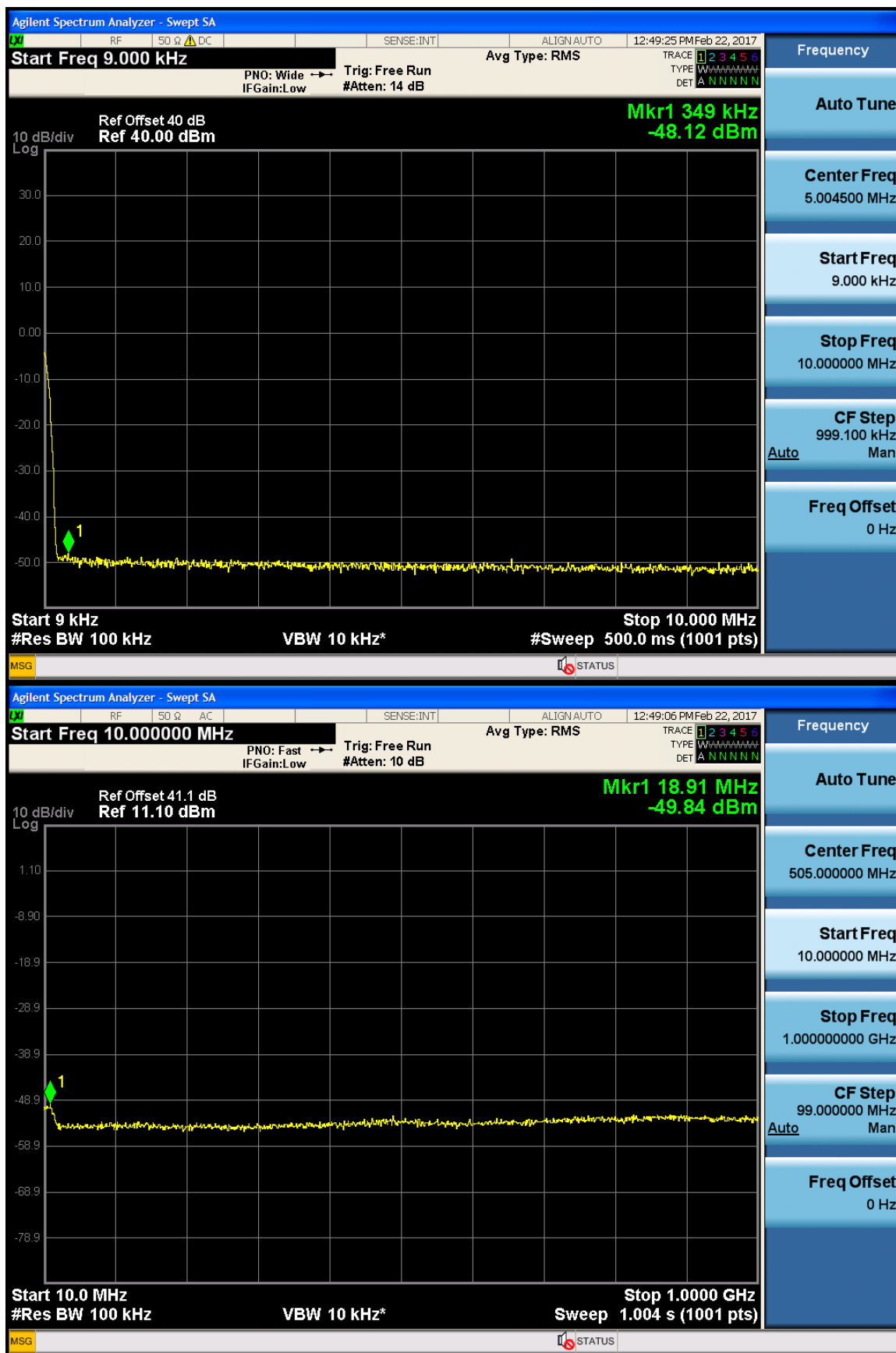


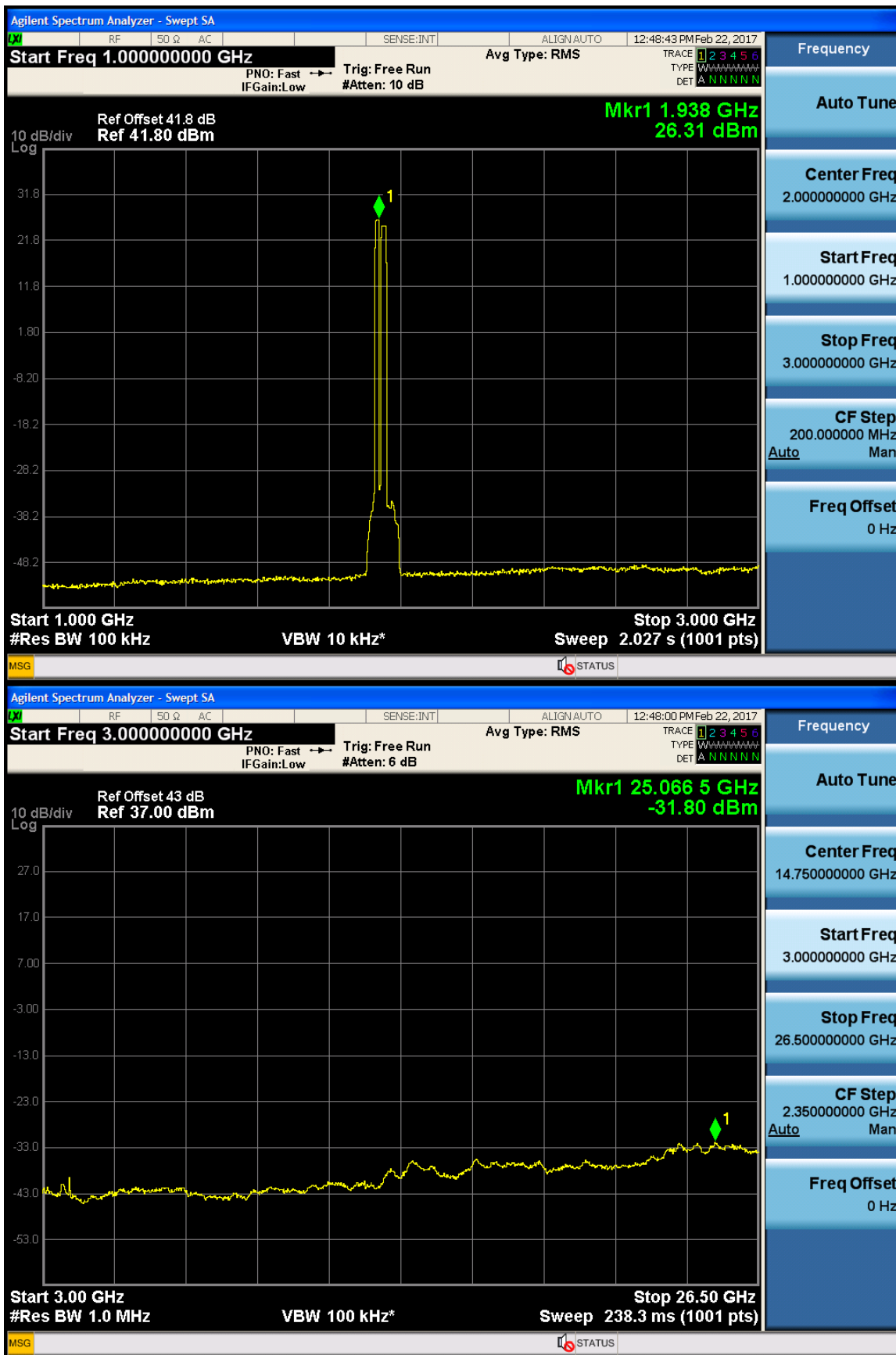
RF 30M (LTE 10M+LTE 15M) -Port 1 -1975MHz



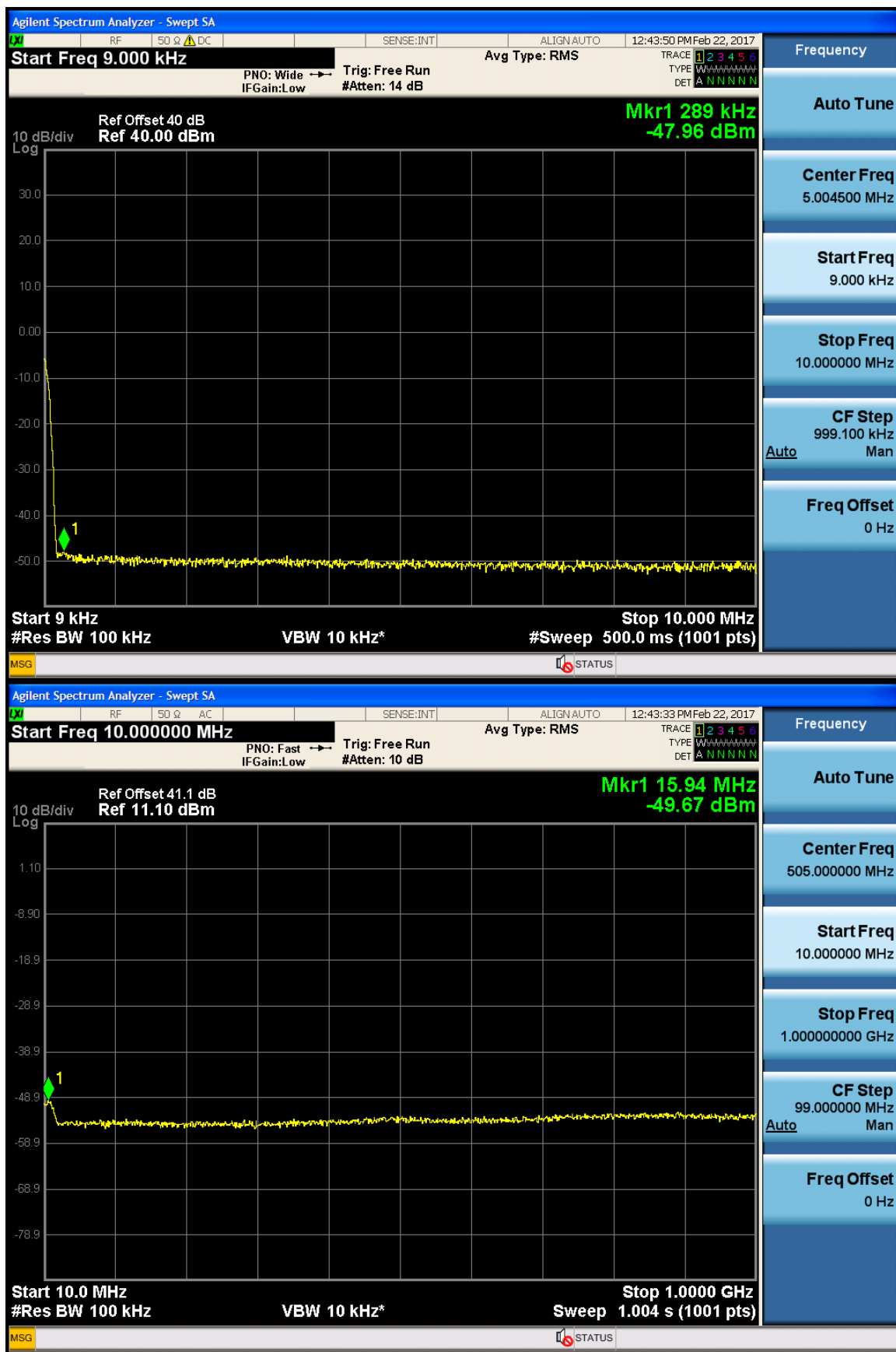


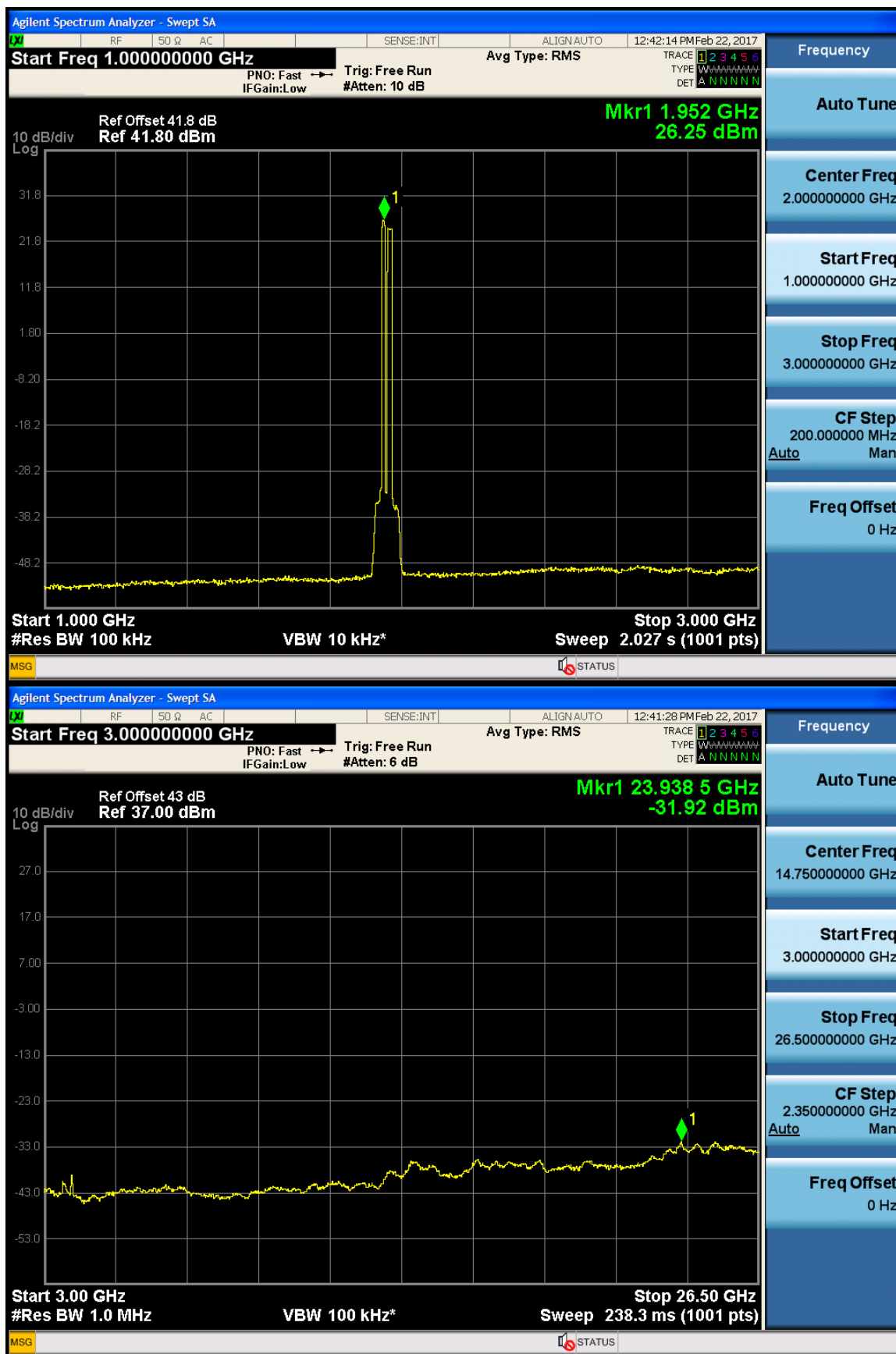
RF 30M (LTE 10M+LTE 15M) -Port 4 -1945MHz



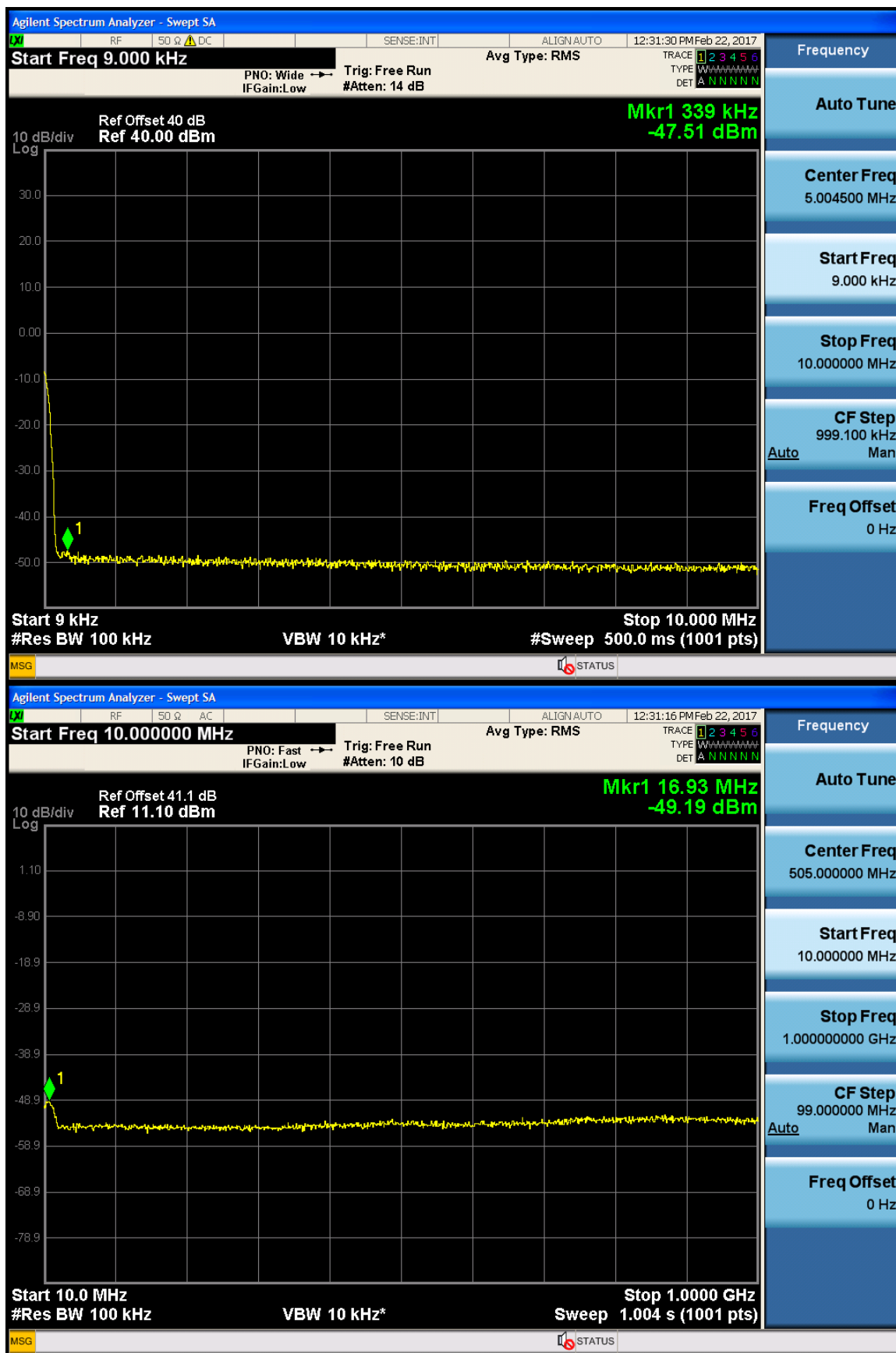


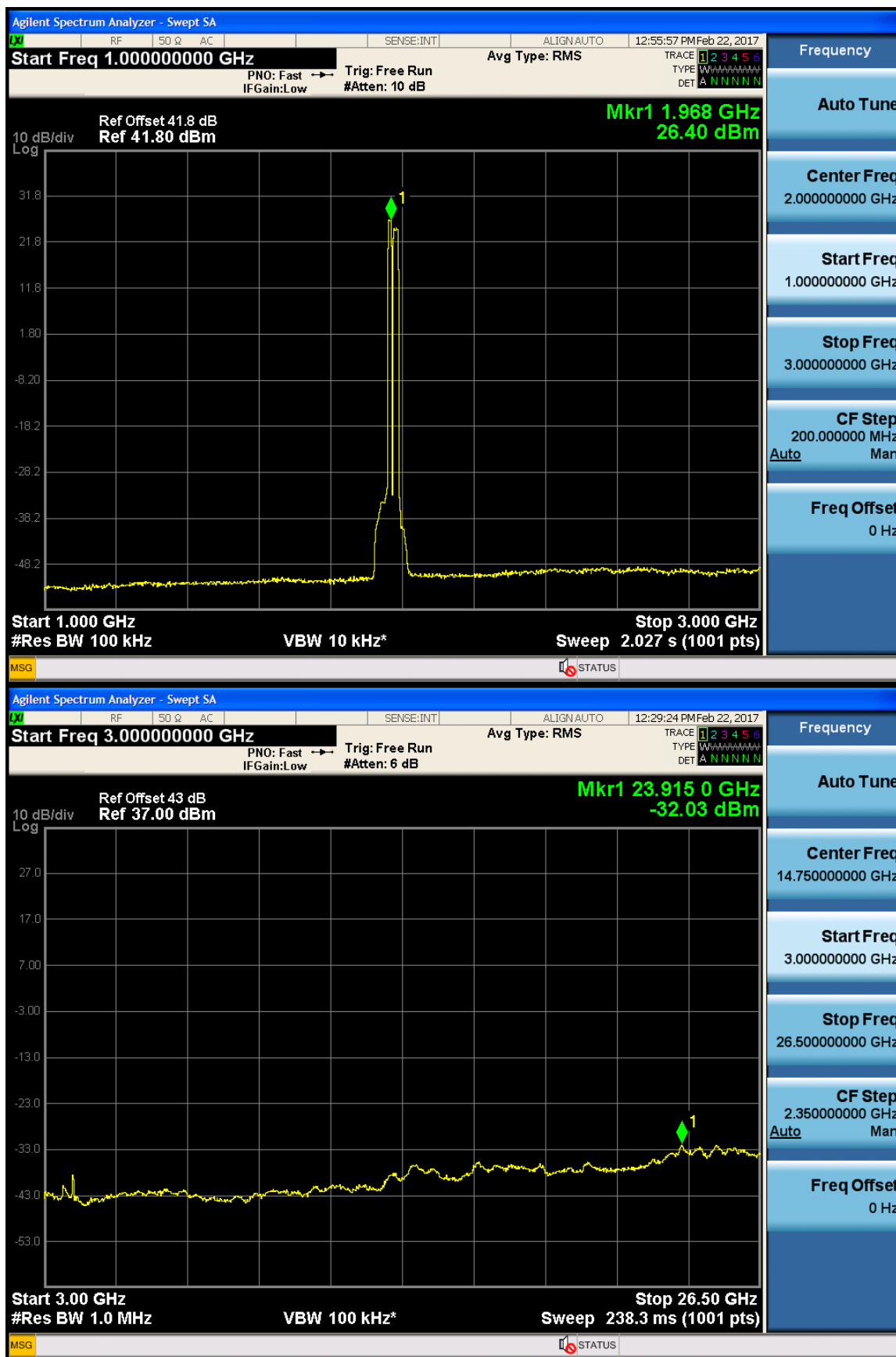
RF 30M (LTE 10M+LTE 15M) -Port 4 -1960MHz





RF 30M (LTE 10M+LTE 15M) -Port 4 -1975MHz







11 OCCUPIED BANDWIDTH

11.1 Applicable Standard: FCC §2.1049

11.2 Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Agilent	MXA Series Spectrum Analyzer	N9030A	MY49431143	2016.09.12	2017.09.12
DTS	DTS 40dB Attenuator	DTS100-40-3-1	09112005	2016.09.12	2017.09.12

***statement of traceability:** ZTE Corporation Reliability Testing Center attest that all calibration have been performed per the NVLAP requirements, traceable to NIST.

11.3 Test Procedure

The RF out of the transmitter was connected to the input of the spectrum analyzer through sufficient attenuation. 99%Power bandwidth was recorded.

11.4 Environmental Conditions

Temperature:	20 ° C
Relative Humidity:	53%
ATM Pressure:	1009mbar

11.5 Test Result: Pass

11.6 Test Mode: Transmitting LTE

11.7 Test Data

RF Bandwidth :IBW 40M(LTE 20M+LTE 20M)

Port	RF Center Freq. (MHz)	99% Power Bandwidth (MHz)	Limit (MHz)
1	1950	37.629	40M
	1960	37.656	40M
	1970	37.657	40M
4	1950	37.673	40M
	1960	37.636	40M
	1970	37.644	40M

Channel Bandwidth : LTE 20M+LTE 20M (IBW 40M)

Port	RF Center Freq. (MHz)	LTE Center Freq. (MHz)	99% Power Bandwidth (MHz)	Limit (MHz)
1	1950	1940	17.831	20M
		1960	17.836	20M
	1960	1950	17.827	20M
		1970	17.839	20M